

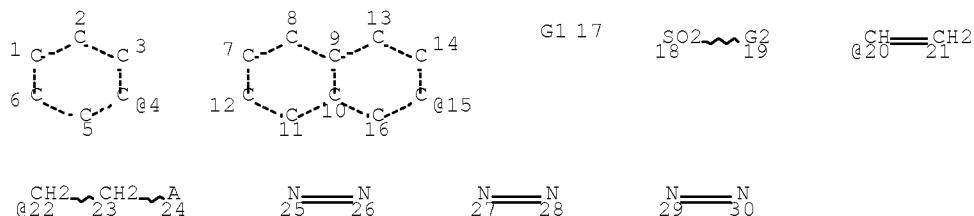
STRUCTURE SEARCH

=> d his 139

(FILE 'HCAPLUS' ENTERED AT 13:41:27 ON 20 JUL 2010)
 L39 14 S L35 AND (L37 OR L38)

=> d que 139

L19 STR



VAR G1=4/15
 VAR G2=20/22
 NODE ATTRIBUTES:
 NSPEC IS RC AT 24
 DEFAULT MLEVEL IS ATOM
 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
 RING(S) ARE ISOLATED OR EMBEDDED
 NUMBER OF NODES IS 30

STEREO ATTRIBUTES: NONE

L24 1680 SEA FILE=REGISTRY SSS FUL L19
 L27 216 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L24
 L32 QUE SPE=ON ABB=ON PLU=ON (LEATHER? OR COWHIDE OR CO
 W(A)HIDE)
 L35 14 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L27 AND L32
 L37 QUE SPE=ON ABB=ON PLU=ON PY=<2004 NOT P/DT
 L38 QUE SPE=ON ABB=ON PLU=ON (PY=<2004 OR PRY=<2004 OR
 AY=<2004 OR MY=<2004 OR REVIEW/DT) AND P/DT
 L39 14 SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L35 AND (L37
 OR L38)

STRUCTURE SEARCH RESULTS

=> d 139 1-14 ibib ed abs hitstr hitind

L39 ANSWER 1 OF 14 HCAPLUS COPYRIGHT 2010 ACS on STN
 ACCESSION NUMBER: 2007:1450040 HCAPLUS Full-text
 DOCUMENT NUMBER: 148:56589
 TITLE: Compositions containing anionic coloring
 agents for dyeing ~~leather~~, paper,
 cardboard and textile substrates
 INVENTOR(S): Mazza, Jorge
 PATENT ASSIGNEE(S): Vilmax S.A.C.I.F.I.A., Argent.
 SOURCE: U.S. Pat. Appl. Publ., 10pp., Cont.-in-part of
 U.S. Ser. No. 881,342, abandoned.
 CODEN: USXXCO
 DOCUMENT TYPE: ~~Patent~~
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 3
 PATENT INFORMATION:

PATENT NO. -----	KIND ----	DATE -----	APPLICATION NO. -----	DATE
US 20070289072	A1	20071220	US 2007-748371	2007 0514
			<--	
US 20020083532	A1	20020704	US 2001-23962	2001 1218
			<--	
US 20060150345	A1	20060713	US 2004-881342	2004 0630
			<--	
PRIORITY APPLN. INFO.:			AR 2000-106734	A 2000 1218
			<--	
			US 2001-23962	B2 2001 1218
			<--	
			US 2004-881342	B2 2004 0630
			<--	

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

OTHER SOURCE(S): CASREACT 148:56589; MARPAT 148:56589

ED Entered STN: 21 Dec 2007

AB The anionic coloring agents have formula: CA-RSA (CA = chromophore groups; RSA = spacer-arm with the chemical structure -X-Z-R where X = direct bond; -S(O)n, -NR1, wherein R1 = H, C1-10 alkyl group; Z = C1-10 alkylene group; R = amino group, alternatively, R = -NR4-(CH2)m-W, wherein R4 = H, hydroxy C1-C10 alkyl group, C1-10 alkyl group; m = 1-10; W = carboxy or its ester and amide group, -CN, sulfonic group or its derivative groups; provided that when X = NR1 and R = amino group of NR2R3 then R1, R2 and R3 can not be simultaneously a H atom). The inclusion of spacer-arms in anionic coloring agents improves dye properties such as strength, tone and affinity. Thus, coupling of diazotized 2-naphthylamino-3,6,8-trisulfonic acid with 3-ureidoaniline, reacting the resulting coupling product with cyanuric chloride and coupling again with m-phenylenediamine-4-sulfonic acid at controlled conditions gave a monochlorotriazine dye precursor which was mixed with 4-aminophenyl- β -hydroxyethylsulfone sulfate ester, and ϵ -aminocaproic acid, diazotized and coupled to give a coloring agent.

IT 440103~79~78

RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical
 or engineered material use); PREP (Preparation); USES (Uses)

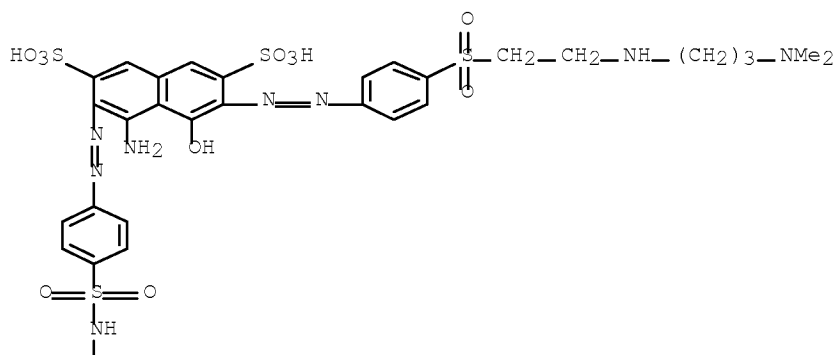
10/577,776-337287-EIC SEARCH

(anionic dye; manufacture of compns. containing anionic coloring agents for dyeing ~~leather~~, paper, cardboard and textile substrates)

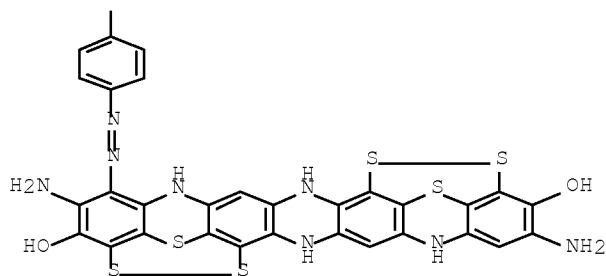
RN 440103-79-7 HCAPLUS

CN 2,7-Naphthalenedisulfonic acid,
4-amino-3-[2-[4-[[[4-[(2,11-diamino-7,9,16,18-tetrahydro-3,12-dihydroxy-4,6:13,15-diepidithiopyrazino[2,3-b:5,6-b']diphenothiazin-1-yl)azo]phenyl]amino]sulfonyl]phenyl]diazenyl]-6-[2-[4-[[2-[[3-(dimethylamino)propyl]amino]ethyl]sulfonyl]phenyl]diazenyl]-5-hydroxy- (CA INDEX NAME)

PAGE 1-A



PAGE 2-A



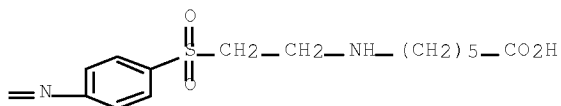
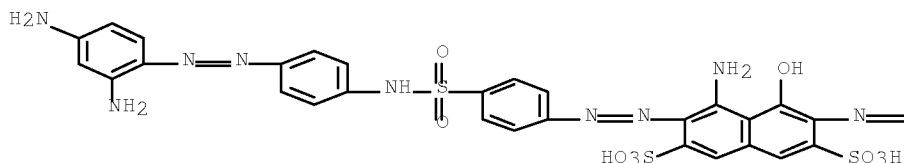
IT 960071-41-4

RL: PRP (Properties); TEM (Technical or engineered material use);
USES (Uses)

(anionic dye; manufacture of compns. containing anionic coloring agents for dyeing ~~leather~~, paper, cardboard and textile substrates)

RN 960071-41-4 HCAPLUS

CN Hexanoic acid, 6-[[2-[[4-[2-[8-amino-7-[2-[4-[[[4-[(2,4-diaminophenyl)diazenyl]phenyl]amino]sulfonyl]phenyl]diazenyl]-1-hydroxy-3,6-disulfo-2-naphthalenyl]diazenyl]phenyl]sulfonyl]ethyl]amino]- (CA INDEX NAME)



INCL 008652000; 008675000; 008696000
 IPCI C09B0049-00 [I,A]; C09B0056-00 [I,A]; C09B0056-10 [I,A];
 C09B0056-12 [I,A]; C09B0056-14 [I,A]
 NCL 008/652.000; 008/675.000; 008/696.000
 CC 41-8 (Dyes, Organic Pigments, Fluorescent Brighteners, and
 Photographic Sensitizers)
 Section cross-reference(s): 40, 43, 45
 ST textile paper ~~leather~~ dye coloring agent
 IT Azo dyes
 Dyeing
~~Leather~~
 Paper
 Paperboard
 Textiles
 (manufacture of compns. containing anionic coloring agents for dyeing
~~leather~~, paper, cardboard and textile substrates)
 IT 440103-79-7P 960071-43-6P 960071-44-7P
 960071-45-8P
 RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical
 or engineered material use); PREP (Preparation); USES (Uses)
 (anionic dye; manufacture of compns. containing anionic coloring agents
 for dyeing ~~leather~~, paper, cardboard and textile
 substrates)
 IT 960071-40-3 960071-41-4
 RL: PRP (Properties); TEM (Technical or engineered material use);
 USES (Uses)
 (anionic dye; manufacture of compns. containing anionic coloring agents
 for dyeing ~~leather~~, paper, cardboard and textile
 substrates)
 IT 88-63-1, m-Phenylenediamine-4-sulfonic acid 90-20-0,
 4-Amino-5-hydroxy-2,7-naphthalenedisulfonic acid 90-51-7,
 6-Amino-4-hydroxy-2-naphthalenesulfonic acid 102-01-2,
 Acetoacetanilide 106-50-3, p-Phenylenediamine, reactions
 591-27-5, m-Aminophenol 25711-72-2, 3-Ureidoaniline
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (coupling component; manufacture of compns. containing anionic coloring
 agents for dyeing ~~leather~~, paper, cardboard and
 textile substrates)
 IT 118-03-6, 2-Amino-3,6,8-naphthalenetrisulfonic acid 2494-89-5,
 4-Aminophenyl β -hydroxyethyl sulfone sulfate ester
 16803-97-7, 4,4'-Diaminosulfanilide 78696-32-9 440103-81-1
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (diazotized component; manufacture of compns. containing anionic
 coloring agents for dyeing ~~leather~~, paper, cardboard

10/577,776-337287-EIC SEARCH

and textile substrates)

IT 60-32-2, ϵ -Aminocaproic acid 108-77-0, Cyanuric chloride
1326-82-5, Sulfur Black 1 2937-53-3, 2-Aminoethanethiosulfonic
acid 22584-31-2, 3-[(2-Aminoethyl)amino]propionitrile
RL: RCT (Reactant); RACT (Reactant or reagent)
(manufacture of compns. containing anionic coloring agents for dyeing
leather, paper, cardboard and textile substrates)

L39 ANSWER 2 OF 14 HCAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 2006:342381 HCAPLUS Full-text

DOCUMENT NUMBER: 144:371568

TITLE: Reactive polyazo dyes for coloring textiles.

INVENTOR(S): Lamm, Gunther; Goerlitz, Gunter; Klingenmeier,
Horst

PATENT ASSIGNEE(S): Dystar Textilfarben Gmbh & Co. Deutschland KG,
Germany

SOURCE: Ger. Offen., 31 pp.

CODEN: GWXXBX

DOCUMENT TYPE: ~~Patent~~

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

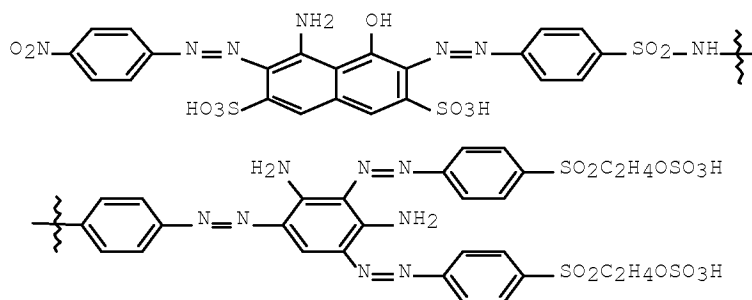
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	
DE 102004049092	A1	20060413	DE 2004-102004049092	2004 1008
			<--	
AU 2005293613	A1	20060420	AU 2005-293613	2005 1005
			<--	
WO 2006040285	A1	20060420	WO 2005-EP55027	2005 1005
			<--	
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
EP 1799772	A1	20070627	EP 2005-791995	2005 1005
			<--	
R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR				
CN 101040011	A	20070919	CN 2005-80034488	2005 1005
			<--	
JP 2008516032	T	20080515	JP 2007-535169	2005 1005
			<--	

10/577,776-337287-EIC SEARCH

BR 2005016480	A	20080902	BR 2005-16480	2005 1005
			<--	
ZA 2007000126	A	20080528	ZA 2007-126	2007 0104
			<--	
IN 2007KN00103	A	20070629	IN 2007-KN103	2007 0109
			<--	
MX 2007004154	A	20070911	MX 2007-4154	2007 0404
			<--	
US 20080047079	A1	20080228	US 2007-576721	2007 0626
			<--	
PRIORITY APPLN. INFO.:			DE 2004-102004049092A	2004 1008
			<--	
			WO 2005-EP55027	2005 1005

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT
 OTHER SOURCE(S): CASREACT 144:371568; MARPAT 144:371568
 ED Entered STN: 14 Apr 2006
 GI



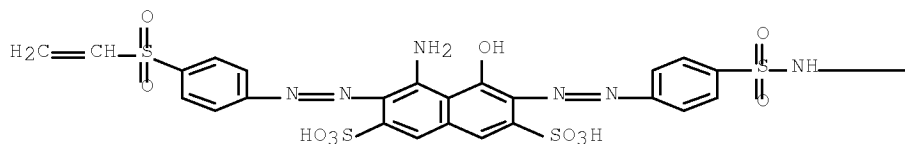
AB Reactive polyazo dyes such as I are used for dyeing OH- and amino-group-containing fabrics and leather.

IT 882066-87-7P 882066-88-8P
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (gray dye; reactive polyazo dyes used for dyeing OH- and amino-group-containing fabrics and leather)

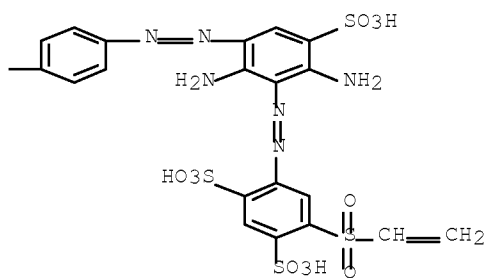
RN 882066-87-7 HCAPLUS

CN 2,7-Naphthalenedisulfonic acid,
 4-amino-6-[2-[4-[[[4-[2-[2,4-diamino-3-[2-[5-(ethenylsulfonyl)-2,4-disulfophenyl]diazenyl]-5-sulfophenyl]diazenyl]phenyl]amino]sulfonyl]phenyl]diazenyl]-3-[2-[4-(ethenylsulfonyl)phenyl]diazenyl]-5-hydroxy- (CA INDEX NAME)

PAGE 1-A



PAGE 1-B

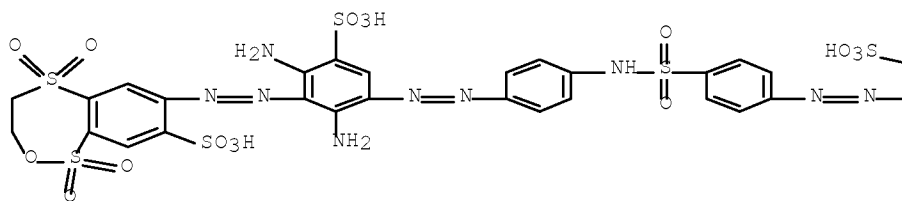


RN 882066-88-8 HCAPLUS

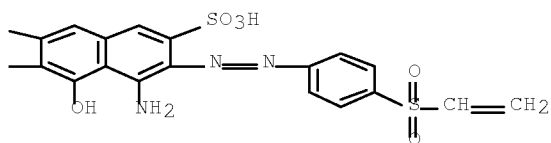
CN 2,7-Naphthalenedisulfonic acid,

4-amino-6-[2-[4-[[[4-[2-[2,4-diamino-3-[2-(3,4-dihydro-1,1,5,5-tetraoxido-8-sulfo-2,1,5-benzoxadithiepin-7-yl)diazenyl]-5-sulphophenyl]diazenyl]phenyl]amino]sulfonyl]phenyl]diazenyl]-3-[2-[4-(ethenylsulfonyl)phenyl]diazenyl]-5-hydroxy- (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



IT 882066-85-5P 882066-86-5P

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

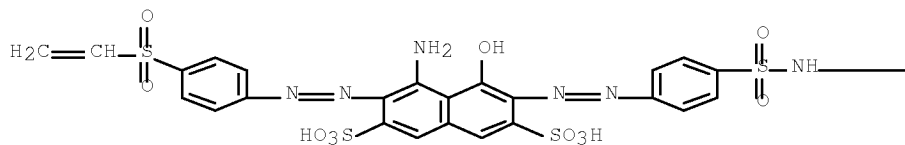
10/577,776-337287-EIC SEARCH

(green dye; reactive polyazo dyes used for dyeing OH- and amino-group-containing fabrics and leather)

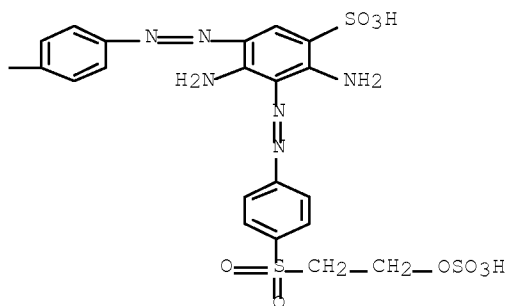
RN 882066-85-5 HCAPLUS

CN 2,7-Naphthalenedisulfonic acid,
4-amino-6-[2-[4-[[[4-[2-[2,4-diamino-5-sulfo-3-[2-[4-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]diazenyl]phenyl]diazenyl]phenyl]amino]sulfonyl]phenyl]diazenyl]-3-[2-[4-(ethenylsulfonyl)phenyl]diazenyl]-5-hydroxy- (CA INDEX NAME)

PAGE 1-A



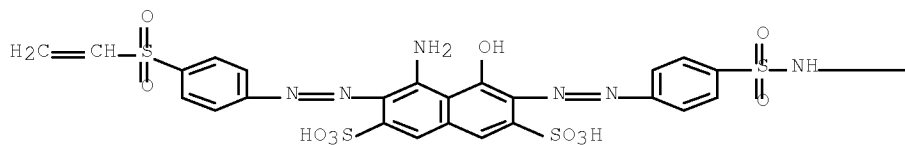
PAGE 1-B

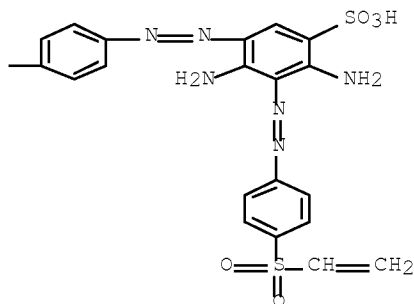


RN 882066-86-6 HCAPLUS

CN 2,7-Naphthalenedisulfonic acid,
4-amino-6-[2-[4-[[[4-[2-[2,4-diamino-3-[2-[4-(ethenylsulfonyl)phenyl]diazenyl]-5-sulfo]phenyl]diazenyl]phenyl]diazenyl]-3-[2-[4-(ethenylsulfonyl)phenyl]diazenyl]-5-hydroxy- (CA INDEX NAME)

PAGE 1-A



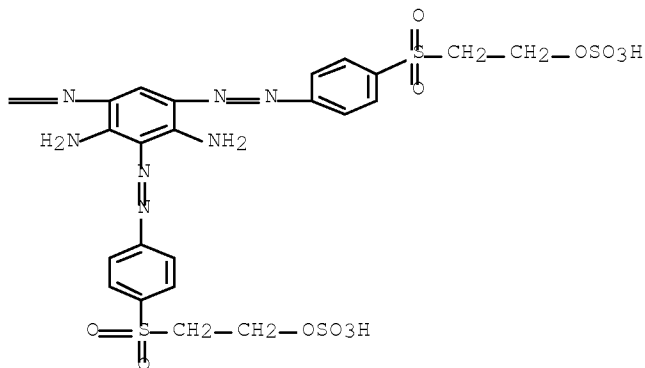
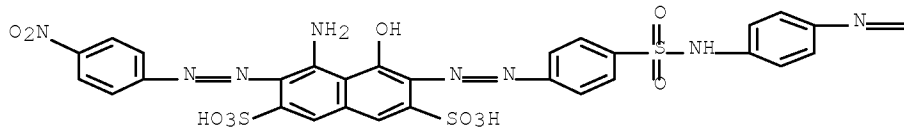


IT 882066-79-7P

RL: IMF (Industrial manufacture); PREP (Preparation)
 (reactive polyazo dyes used for dyeing OH- and
 amino-group-containing fabrics and leather)

RN 882066-79-7 HCAPLUS

CN 2,7-Naphthalenedisulfonic acid,
 4-amino-6-[2-[4-[[[4-[2-[2,4-diamino-3,5-bis[2-[4-[[2-
 (sulfoxy)ethyl]sulfonyl]phenyl]diazenyl]phenyl]diazenyl]phenyl]am
 ino]sulfonyl]phenyl]diazenyl]-5-hydroxy-3-[2-(4-
 nitrophenyl)diazenyl]- (CA INDEX NAME)

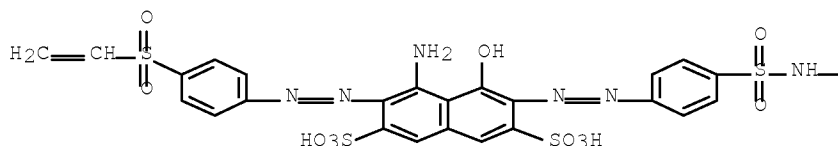


IT 882066-80-0P 882066-81-1P

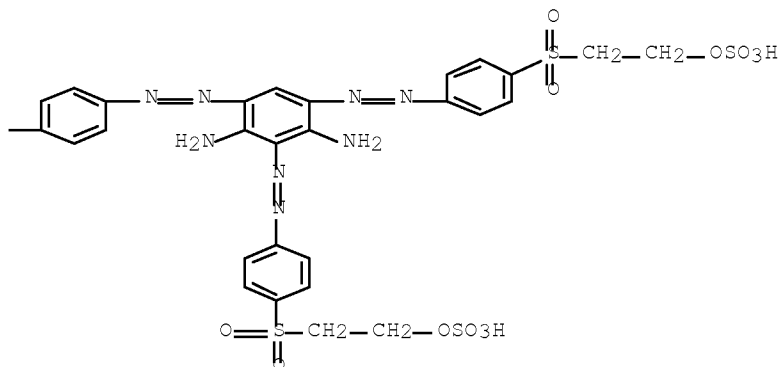
RL: IMF (Industrial manufacture); TEM (Technical or engineered

material use); PREP (Preparation); USES (Uses
(reactive polyazo dyes used for dyeing OH- and
amino-group-containing fabrics and leather)

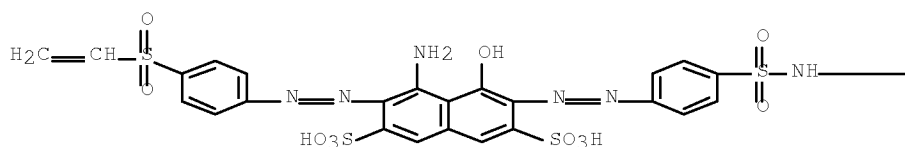
PAGE 1-A

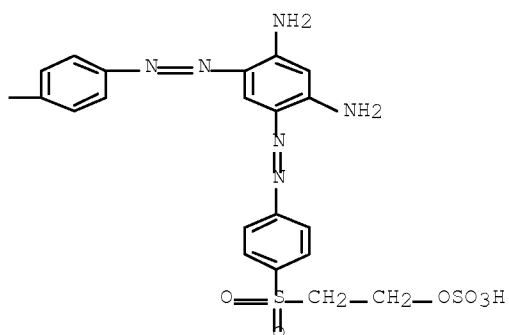


PAGE 1-B



PAGE 1-A





IPCI C09B0062-533 [I,A]; C09B0062-44 [I,C*]; D06P0001-38 [I,A];
 C09B0067-36 [I,A]; C09B0067-00 [I,C*]
 IPCR C09B0062-44 [I,C]; C09B0062-533 [I,A]; C09B0067-00 [I,C];
 C09B0067-36 [I,A]; D06P0001-38 [I,C]; D06P0001-38 [I,A]
 CC 41-3 (Dyes, Organic Pigments, Fluorescent Brighteners, and
 Photographic Sensitizers)
 Section cross-reference(s): 40
 ST reactive azo dye cotton wool ~~leather~~ dyeing
 IT ~~leather~~
 (dyeing; reactive polyazo dyes used for dyeing OH- and
 amino-group-containing fabrics and ~~leather~~)
 IT Polyamide fibers, miscellaneous
 RL: MSC (Miscellaneous)
 (dyeing; reactive polyazo dyes used for dyeing OH- and
 amino-group-containing fabrics and ~~leather~~)
 IT Reactive dyeing
 (of fibers and ~~leather~~; reactive polyazo dyes used
 for dyeing OH- and amino-group-containing fabrics and
~~leather~~)
 IT Cotton fibers
 Reactive azo dyes
 Reactive dyes
 Wool
 (reactive polyazo dyes used for dyeing OH- and
 amino-group-containing fabrics and ~~leather~~)
 IT 882066-84-4P
 RL: IMF (Industrial manufacture); TEM (Technical or engineered
 material use); PREP (Preparation); USES (Uses)
 (black dye; reactive polyazo dyes used for dyeing OH- and
 amino-group-containing fabrics and ~~leather~~)
 IT 5329-14-6, Amidosulfonic acid 42986-22-1 56125-05-4
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (coupling component; reactive polyazo dyes used for dyeing OH-
 and amino-group-containing fabrics and ~~leather~~)
 IT 90-20-0, 1-Amino-8-hydroxy-3,6-naphthalenedisulfonic acid
 108-45-2, m-Phenylenediamine, reactions 16803-97-7,
 4-Amino-N-(4-aminophenyl)benzenesulfonamide
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (diazo component; reactive polyazo dyes used for dyeing OH- and
 amino-group-containing fabrics and ~~leather~~)
 IT 882066-87-7P 882066-88-8P
 RL: IMF (Industrial manufacture); TEM (Technical or engineered
 material use); PREP (Preparation); USES (Uses)
 (gray dye; reactive polyazo dyes used for dyeing OH- and
 amino-group-containing fabrics and ~~leather~~)

10/577,776-337287-EIC SEARCH

IT 882066-85-5P 882066-86-6P
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (green dye; reactive polyazo dyes used for dyeing OH- and amino-group-containing fabrics and leather)

IT 882066-79-7P
 RL: IMF (Industrial manufacture); PREP (Preparation)
 (reactive polyazo dyes used for dyeing OH- and amino-group-containing fabrics and leather)

IT 72089-20-4P
 RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
 (reactive polyazo dyes used for dyeing OH- and amino-group-containing fabrics and leather)

IT 882066-80-0P 882066-81-1P 882066-82-2P 882066-83-3P
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (reactive polyazo dyes used for dyeing OH- and amino-group-containing fabrics and leather)

IT 88-63-1 100-01-6, 4-Nitroaniline, reactions 2494-88-4 2494-89-5 214897-29-7
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (reactive polyazo dyes used for dyeing OH- and amino-group-containing fabrics and leather)

L39 ANSWER 3 OF 14 HCAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 2003:297799 HCAPLUS Full-text

DOCUMENT NUMBER: 138:273003

TITLE: Aromatic diformamide of N,N'-disubstituted aniline in the synthesis of azo dyes

INVENTOR(S): Lin, Haixia; Wang, Limin; Xiong, Jing; Zhang, Jing; Wang, Lijun

PATENT ASSIGNEE(S): Wenzhou Normal College, Peop. Rep. China; Huadong University of Technology

SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu, 23 pp.

CODEN: CNXXEV

DOCUMENT TYPE: Patent

LANGUAGE: Chinese

FAMILY ACC. NUM. COUNT: 1

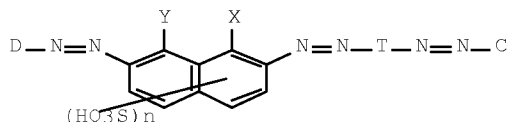
PATENT INFORMATION:

PATENT NO. -----	KIND ----	DATE -----	APPLICATION NO. -----	DATE
CN 1339541	A	20020313	CN 2001-126872	2001 0926
			<--	
CN 1131283	C	20031217		
PRIORITY APPLN. INFO.:			CN 2001-126872	2001 0926
			<--	

OTHER SOURCE(S): MARPAT 138:273003

ED Entered STN: 18 Apr 2003

GI



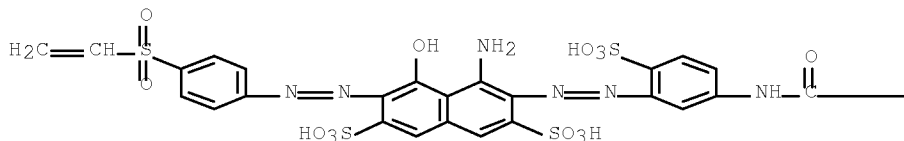
AB An aromatic diformamide of N,N'-disubstituted aniline having the general formula I (X = Ph, naphthyl, pyridinyl, pyrrolidinyl, furfuryl; n = 0 or 1) has been used as an alternative intermediate to the benzidine group in the synthesis of azo dyes. A series of azo dyes were synthesized using these intermediates to eliminate the use of toxic, carcinogenic benzidine derivs. The N,N'-di-substituted anilino aromatic dimethylamide azo dyes can be used in dyeing of leather, wool, silk, etc.

IT 503448-01-9P 503448-02-0P
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (production of azo dyes with aromatic diformamide of N,N'-disubstituted aniline intermediates)

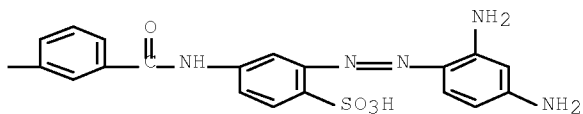
RN 503448-01-9 HCAPLUS

CN 2,7-Naphthalenedisulfonic acid,
 4-amino-3-[2-[5-[[3-[[[3-[2-(2,4-diaminophenyl)diazenyl]-4-sulfo-phenyl]amino]carbonyl]benzoyl]amino]-2-sulfo-phenyl]diazenyl]-6-[2-[4-(ethenylsulfonyl)phenyl]diazenyl]-5-hydroxy- (CA INDEX NAME)

PAGE 1-A



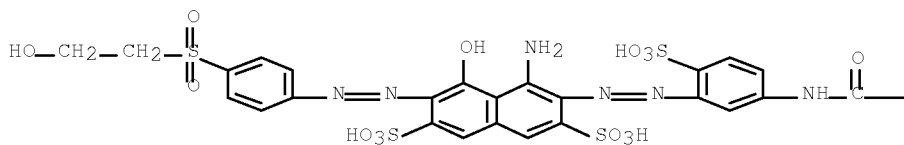
PAGE 1-B

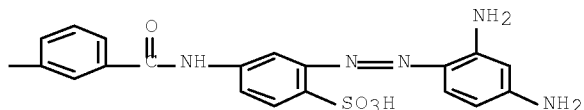


RN 503448-02-0 HCAPLUS

CN 2,7-Naphthalenedisulfonic acid,
 4-amino-3-[2-[5-[[3-[[[3-[2-(2,4-diaminophenyl)diazenyl]-4-sulfo-phenyl]amino]carbonyl]benzoyl]amino]-2-sulfo-phenyl]diazenyl]-5-hydroxy-6-[2-[4-[(2-hydroxyethyl)sulfonyl]phenyl]diazenyl]- (CA INDEX NAME)

PAGE 1-A





IPCI C09B0033-147 [ICM,7]; C09B0033-00 [ICM,7,C*]

IPCR C09B0033-00 [I,C*]; C09B0033-147 [I,A]

CC 41-3 (Dyes, Organic Pigments, Fluorescent Brighteners, and Photographic Sensitizers)

Section cross-reference(s): 23

IT Azo dyes

Leather

Silk

Wool

(production of azo dyes with aromatic diformamide of N,N'-disubstituted aniline intermediates)

IT 495402-24-9P 503447-75-4P 503447-76-5P 503447-77-6P
 503447-78-7P 503447-79-8P 503447-80-1P 503447-81-2P
 503447-82-3P 503447-83-4P 503447-84-5P 503447-85-6P
 503447-86-7P 503447-87-8P 503447-88-9P 503447-89-0P
 503447-90-3P 503447-91-4P 503447-92-5P 503447-93-6P
 503447-94-7P 503447-95-8P 503447-96-9P 503447-97-0P
 503447-98-1P 503447-99-2P 503448-00-8P ~~503448-01-9P~~
~~503448-02-0P~~ 503448-03-1P 503448-04-2P 503448-05-3P
 503448-06-4P 503448-08-6P 503448-09-7P 503448-10-0P
 503448-11-1P 503448-12-2P 503448-13-3P 503448-14-4P
 503448-15-5P 503448-16-6P 503448-17-7P 503448-18-8P

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(production of azo dyes with aromatic diformamide of N,N'-disubstituted aniline intermediates)

L39 ANSWER 4 OF 14 HCAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 2002:505067 HCAPLUS Full-text

DOCUMENT NUMBER: 137:80276

TITLE: Anionic azo dyes and their use on cotton and leather

INVENTOR(S): Mazza, Jorge

PATENT ASSIGNEE(S): Argent.

SOURCE: U.S. Pat. Appl. Publ., 9 pp.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 3

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	
US 20020083532	A1	20020704	US 2001-23962	2001 1218
			<--	
US 20060150345	A1	20060713	US 2004-881342	2004 0630
			<--	
US 20070289072	A1	20071220	US 2007-748371	2007 0514
			<--	

10/577,776-337287-EIC SEARCH

PRIORITY APPLN. INFO.:

AR 2000-106734

A

2000

1218

<--

US 2001-23962

A2

2001

1218

<--

US 2004-881342

B2

2004

0630

<--

OTHER SOURCE(S): MARPAT 137:80276

ED Entered STN: 05 Jul 2002

AB Anionic azo dyes are obtained which comprise at least one spacer arm bounded to their chemical structure. These anionic coloring agents may be depicted by CA-BE, wherein CA is an anionic coloring agent comprising at least 1 chromophore group and BE is the spacer arm, which has the chemical structure: $-(X-R-Z)_r$, wherein X is a direct link or a group having the formula $-S(O)_s$, wherein s is 0-2; or $-NR_1-$, wherein R_1 is H or a C1-10-alkyl group; R is a C1-10 straight or branched alkylene group; Z is a polar group; and r is ≥ 1 . The invention also refers to coloring compns., which comprise at least one anionic coloring agent CA-BE in admixt. with anionic coloring agents which do not have spacer arms. The anionic coloring agents and the coloring compns. containing them may be used to dye cotton and wool substrates, regenerated cellulose, leather, cardboard, and paper. The introduction of spacer arms in the structure of the anionic coloring agents leads to modified anionic coloring agents, which differ from the known coloring agents in their dyeing properties such as strength, tone, and affinity, due to fixation modifications onto the substrate to be dyed. Examples were given for the preparation of acid, reactive, sulfur, and metalized dyes.

IT 440103-79-7F

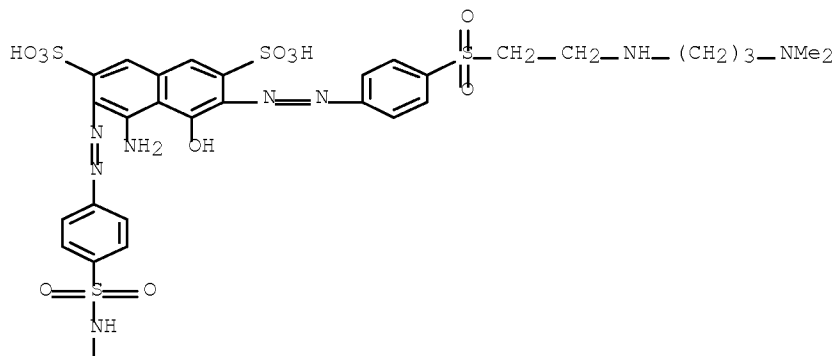
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

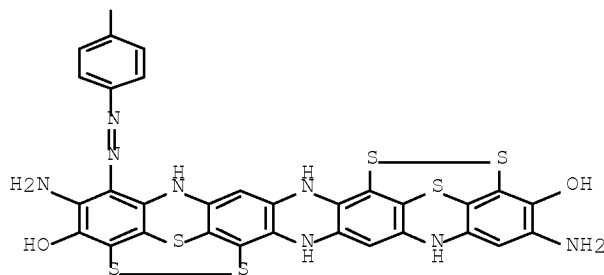
(sulfur dye for leather; production of anionic azo dyes with spacer arms)

RN 440103-79-7 HCAPLUS

CN 2,7-Naphthalenedisulfonic acid,
4-amino-3-[2-[4-[[[4-[(2,11-diamino-7,9,16,18-tetrahydro-3,12-dihydroxy-4,6:13,15-diepidithiopyrazino[2,3-b:5,6-b']diphenothiazin-1-yl)azo]phenyl]amino]sulfonyl]phenyl]diazenyl]-6-[2-[4-[[2-[[3-(dimethylamino)propyl]amino]ethyl]sulfonyl]phenyl]diazenyl]-5-hydroxy- (CA INDEX NAME)

PAGE 1-A





INCL 008436000
 IPCI D06P0003-32 [ICM]; D06P0003-04 [ICM,C*]; C09B0001-00 [ICS];
 D06P0001-00 [ICS]; C09B0047-04 [ICS]; C09B0003-00 [ICS];
 C09B0005-00 [ICS]; C09B0006-00 [ICS]
 IPCR C07D0251-00 [I,C*]; C07D0251-54 [I,A]; C07D0251-68 [I,A];
 C09B0035-00 [I,C*]; C09B0035-36 [I,A]; C09B0043-00 [I,C*];
 C09B0043-16 [I,A]; C09B0045-00 [I,C*]; C09B0045-26 [I,A];
 C09B0056-00 [I,C*]; C09B0056-00 [I,A]; C09B0062-02 [I,C*];
 C09B0062-09 [I,A]; C09B0062-44 [I,C*]; C09B0062-513 [I,A];
 C09B0067-00 [I,C*]; C09B0067-22 [I,A]; C09B0069-00 [I,C*];
 C09B0069-00 [I,A]; C09B0069-04 [I,A]; D06P0001-64 [I,C*];
 D06P0001-642 [I,A]
 NCL 008/436.000; 008/437.000; 008/636.000; 008/657.000; 008/661.000;
 008/662.000; 008/675.000; 008/917.000; 008/918.000; 008/919.000
 CC 41-3 (Dyes, Organic Pigments, Fluorescent Brighteners, and
 Photographic Sensitizers)
 Section cross-reference(s): 28, 40, 45
 IT Azo dyes
 (acid; production of anionic azo dyes with spacer arms for
 leather and cotton)
 IT Textiles
 (cotton; production of anionic azo dyes with spacer arms for
 leather and cotton)
 IT leather
 (production of anionic azo dyes with spacer arms for
 leather and cotton)
 IT 1102416-75-0 1102416-76-1 1102416-77-2 1102416-78-3
 RL: PRPH (Prophetic)
 (Anionic azo dyes and their use on cotton and leather
)
 IT 440103-78-6P
 RL: IMF (Industrial manufacture); TEM (Technical or engineered
 material use); PREP (Preparation); USES (Uses)
 (acid dye for leather; production of anionic azo dyes
 with spacer arms)
 IT 440103-80-0P
 RL: IMF (Industrial manufacture); TEM (Technical or engineered
 material use); PREP (Preparation); USES (Uses)
 (metalized dye for leather; production of anionic azo
 dyes with spacer arms)
 IT 440103-79-7P
 RL: IMF (Industrial manufacture); TEM (Technical or engineered
 material use); PREP (Preparation); USES (Uses)
 (sulfur dye for leather; production of anionic azo dyes
 with spacer arms)

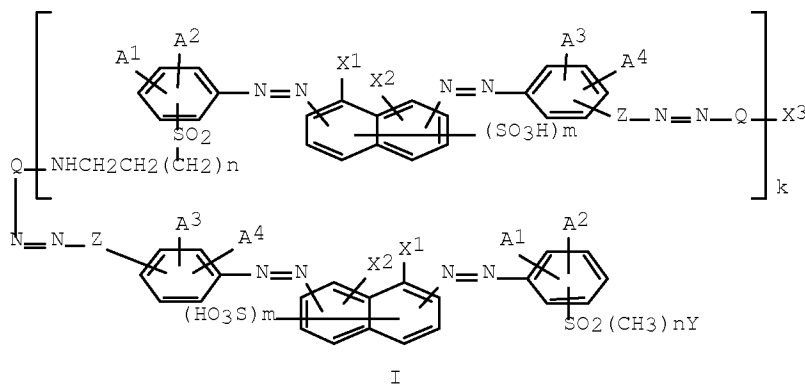
L39 ANSWER 5 OF 14 HCAPLUS COPYRIGHT 2010 ACS on STN
 ACCESSION NUMBER: 1999:791820 HCAPLUS Full-text
 DOCUMENT NUMBER: 132:23858

10/577,776-337287-EIC SEARCH

TITLE: Tris- and polyazo reactive dyes, their mixtures, their production and uses
 INVENTOR(S): Patsch, Manfred; Scholz, Gerhard
 PATENT ASSIGNEE(S): BASF A.-G., Germany
 SOURCE: Ger. Offen., 18 pp.
 CODEN: GWXXBX
 DOCUMENT TYPE: ~~Patent~~
 LANGUAGE: German
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 19825202	A1	19991209	DE 1998-19825202	1998 0605
WO 9964520	A1	19991216	WO 1999-EP3535	1999 0522
EP 1086180	A1	20010328	EP 1999-955488	1999 0522
W: BR, IN, KR, MX, TR, US RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE R: DE, ES, GB, IT				
PRIORITY APPLN. INFO.: DE 1998-19825202 A WO 1999-EP3535 W				

OTHER SOURCE(S): MARPAT 132:23858
 ED Entered STN: 16 Dec 1999
 GI



10/577,776-337287-EIC SEARCH

AB Vinyl sulfone reactive azo dyes [I; A1, A2, A3, A4 = H, sulfo; Q = aromatic or heterocyclic connecting group; X1, X2 = 1 each of hydroxy or amino/substituted amino; X3 = H, amino; Y = vinyl or group convertible thereto; Z = direct bond or organic connecting group; k = 0 or (when X3 = amino) 1-4; m = 1, 2; n = 0, 1] are obtained which have good substantivity, especially on leather. In an example, p-(2-hydroxyethylsulfonyl)aniline→1-hydroxy-8- amino-3,6-naphthalenedisulfonic acid was prepared and coupled with tetrazotized 4,4'-diaminodiphenylsulfamide; coupling of the product with m-phenylenediamine gave a black dye (λ_{\max} 399, 472, 608 nm).

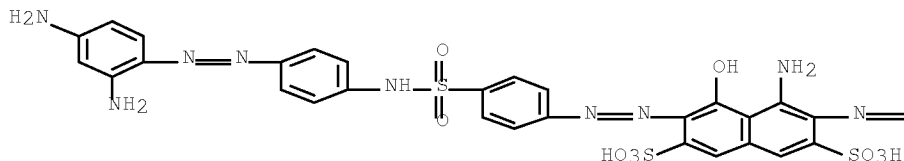
IT 252011-02-2F

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(black dye; production of polyazo reactive dyes)

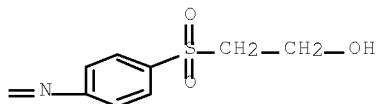
RN 252011-02-2 HCAPLUS

CN 2,7-Naphthalenedisulfonic acid,
4-amino-6-[2-[4-[[4-[2-(2,4-
diaminophenyl)diazenyl]phenyl]amino]sulfonyl]phenyl]diazenyl]-5-
hydroxy-3-[2-[4-[(2-hydroxyethyl)sulfonyl]phenyl]diazenyl]- (CA
INDEX NAME)

PAGE 1-A



PAGE 1-B



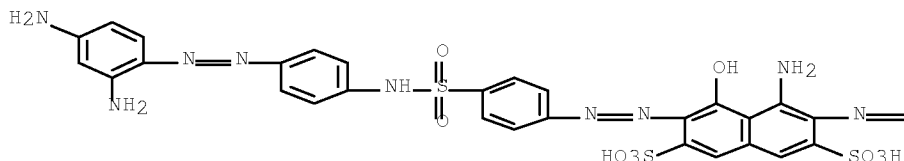
IT 252011-06-6F 252011-07-7F
252011-08-8F

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(black dye; production of polyazo reactive dyes for leather
)

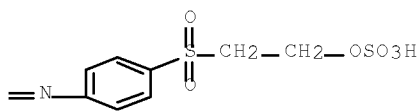
RN 252011-06-6 HCAPLUS

CN 2,7-Naphthalenedisulfonic acid,
4-amino-6-[2-[4-[[4-[2-(2,4-
diaminophenyl)diazenyl]phenyl]amino]sulfonyl]phenyl]diazenyl]-5-
hydroxy-3-[2-[4-[[2-(sulfoxy)ethyl]sulfonyl]phenyl]diazenyl]-
(CA INDEX NAME)

PAGE 1-A

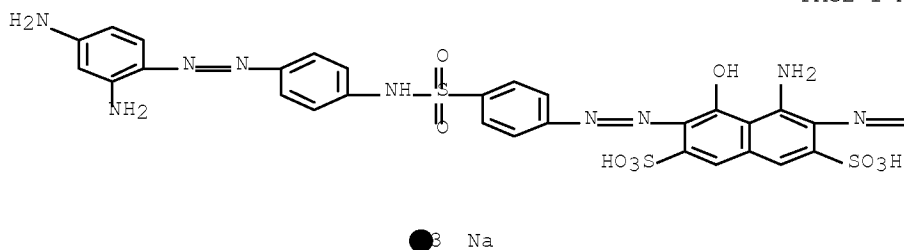


PAGE 1-B

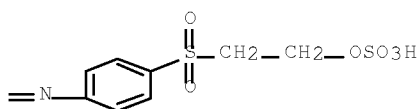


RN 252011-07-7 HCAPLUS
 CN 2,7-Naphthalenedisulfonic acid,
 4-amino-6-[2-[4-[[4-[2-(2,4-
 diaminophenyl)diazenyl]phenyl]amino]sulfonyl]phenyl]diazenyl]-5-
 hydroxy-3-[2-[4-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]diazenyl]-,
 sodium salt (1:3) (CA INDEX NAME)

PAGE 1-A

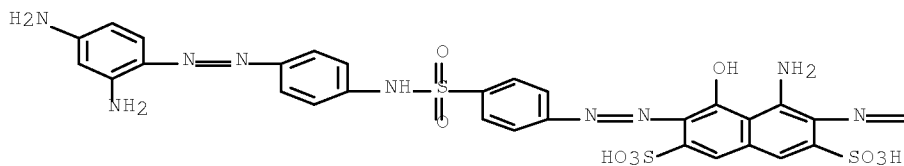


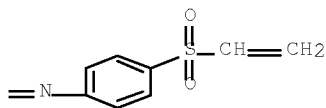
PAGE 1-B



RN 252011-08-8 HCAPLUS
 CN 2,7-Naphthalenedisulfonic acid,
 4-amino-6-[2-[4-[[4-[2-(2,4-
 diaminophenyl)diazenyl]phenyl]amino]sulfonyl]phenyl]diazenyl]-3-[2-
 [4-(ethenylsulfonyl)phenyl]diazenyl]-5-hydroxy- (CA INDEX NAME)

PAGE 1-A



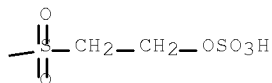
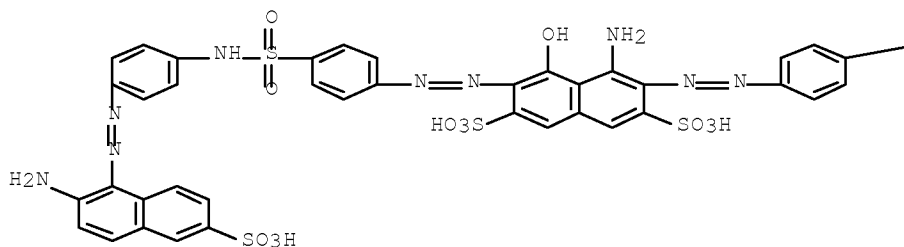


IT 252011-13-58

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(blue dye; production of polyazo reactive dyes for leather)

RN 252011-13-5 HCAPLUS

CN 2,7-Naphthalenedisulfonic acid,
4-amino-6-[2-[4-[[4-[2-(2-amino-6-sulfo-1-naphthalenyl)diazenyl]phenyl]amino]sulfonyl]phenyl]diazenyl]-5-hydroxy-3-[2-[4-[2-(sulfooxy)ethyl]sulfonyl]phenyl]diazenyl]-
(CA INDEX NAME)



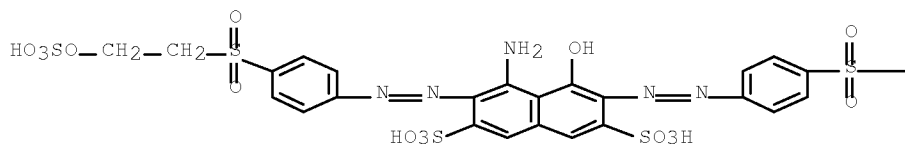
IT 252011-09-98

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(dark green dye; production of polyazo reactive dyes for leather)

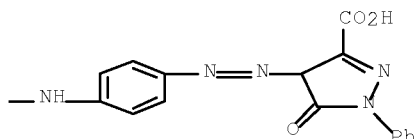
RN 252011-09-9 HCAPLUS

CN 1H-Pyrazole-3-carboxylic acid,
4-[2-[4-[[4-[2-[8-amino-1-hydroxy-3,6-disulfo-7-[2-[4-[[2-(sulfooxy)ethyl]sulfonyl]phenyl]diazenyl]-2-naphthalenyl]diazenyl]phenyl]sulfonyl]amino]phenyl]diazenyl]-4,5-dihydro-5-oxo-1-phenyl- (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



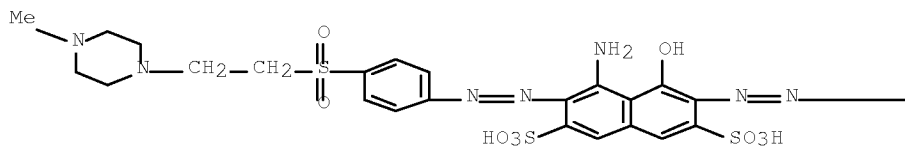
IT 252011-03-3P 252011-04-4P
252011-05-5P

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(dye; production of polyazo reactive dyes)

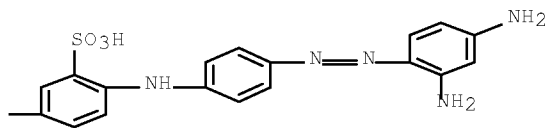
RN 252011-03-3 HCAPLUS

CN 2,7-Naphthalenedisulfonic acid,
4-amino-6-[2-[4-[[4-(2-(2,4-diaminophenyl)diazenyl]phenyl)amino]-3-sulfophenyl]diazenyl]-5-hydroxy-3-[2-[4-[[2-(4-methyl-1-piperazinyl)ethyl]sulfonyl]phenyl]diazenyl]- (CA INDEX NAME)

PAGE 1-A



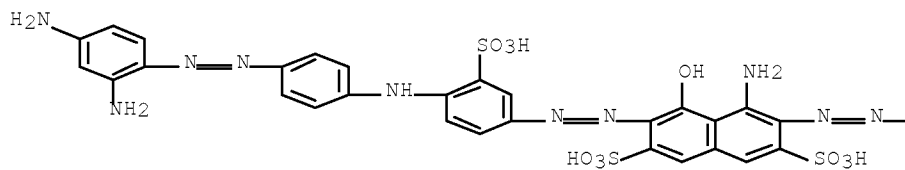
PAGE 1-B



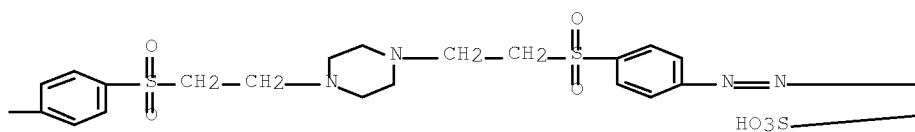
RN 252011-04-4 HCAPLUS

CN 2,7-Naphthalenedisulfonic acid,
3,3'-[1,4-piperazinediyl]bis(2,1-ethanediylsulfonyl-4,1-phenyleneazo)]bis[4-amino-6-[4-[[4-[[2-(2,4-diaminophenyl)azo]phenyl]amino]-3-sulfophenyl]azo]-5-hydroxy- (9CI) (CA INDEX NAME)

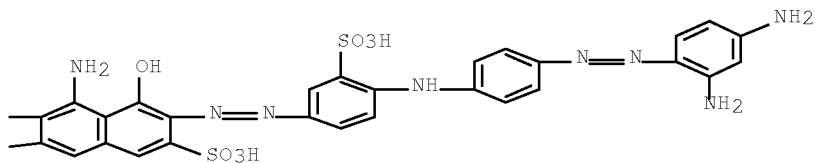
PAGE 1-A



PAGE 1-B

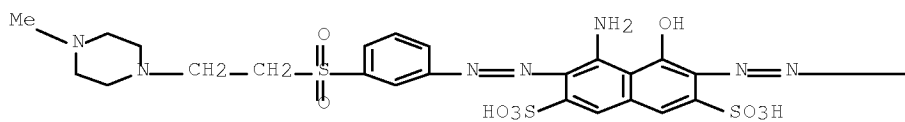


PAGE 1-C

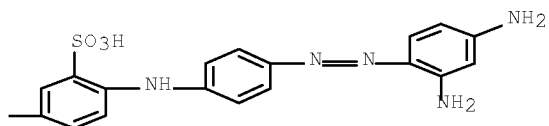


RN 252011-05-5 HCAPLUS
 CN 2,7-Naphthalenedisulfonic acid,
 4-amino-6-[2-[4-[[4-[2-(2,4-diaminophenyl) diazenyl]phenyl]amino]-3-
 sulfophenyl]diazenyl]-5-hydroxy-3-[2-[3-[[2-(4-methyl-1-
 piperazinyl)ethyl]sulfonyl]phenyl]diazenyl]- (CA INDEX NAME)

PAGE 1-A

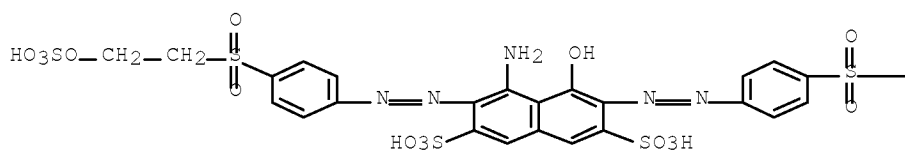


PAGE 1-B

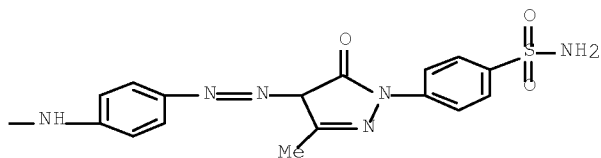


IT 252011-10-2P 252011-11-3P
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (green dye; production of polyazo reactive dyes for leather)
 RN 252011-10-2 HCAPLUS
 CN 2,7-Naphthalenedisulfonic acid,
 4-amino-6-[2-[4-[[[4-[2-[1-[4-(aminosulfonyl)phenyl]-4,5-dihydro-3-methyl-5-oxo-1H-pyrazol-4-yl]diazenyl]phenyl]amino]sulfonyl]phenyl]diazenyl]-5-hydroxy-3-[2-[4-[2-(sulfooxy)ethyl]sulfonyl]phenyl]diazenyl]- (CA INDEX NAME)

PAGE 1-A

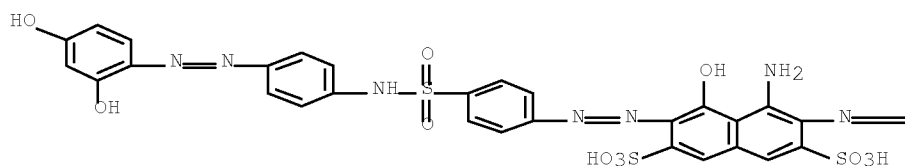


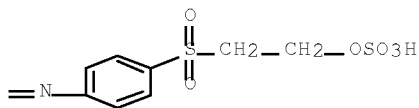
PAGE 1-B



RN 252011-11-3 HCAPLUS
 CN 2,7-Naphthalenedisulfonic acid,
 4-amino-6-[2-[4-[[[4-[2-(2,4-dihydroxyphenyl)diazenyl]phenyl]amino]sulfonyl]phenyl]diazenyl]-5-hydroxy-3-[2-[4-[2-(sulfooxy)ethyl]sulfonyl]phenyl]diazenyl]- (CA INDEX NAME)

PAGE 1-A



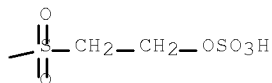
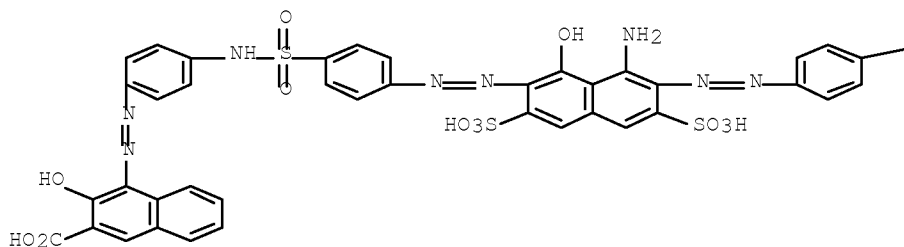


IT 252011-12-48

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(navy blue dye; production of polyazo reactive dyes for leather)

RN 252011-12-4 HCAPLUS

CN 2-Naphthalenecarboxylic acid,
4-[2-[4-[[[4-[2-[8-amino-1-hydroxy-3,6-disulfo-7-[2-[4-[2-(sulfooxy)ethyl)sulfonyl]phenyl]diazenyl]-2-naphthalenyl]diazenyl]phenyl]sulfonyl]amino]phenyl]diazenyl]-3-hydroxy- (CA INDEX NAME)



IPCI C09B0062-513 [ICM,6]; C09B0062-44 [ICM,6,C*]; C09B0035-38 [ICS,6]; C09B0035-00 [ICS,6,C*]; C09B0043-32 [ICS,6]; C09B0043-00 [ICS,6,C*]; C09B0067-22 [ICS,6]; C09B0067-00 [ICS,6,C*]; D06P0003-32 [ICS,6]; D06P0001-384 [ICS,6]; D06P0001-38 [ICS,6,C*]; C07C0309-50 [ICS,6]; C07C0309-00 [ICS,6,C*]; D06P0003-10 [ICA,6]; D06P0003-04 [ICA,6,C*]; D06P0003-66 [ICA,6]; D06P0003-58 [ICA,6,C*]; C07C0317-32 [ICA,6]; C07C0317-00 [ICA,6,C*]
IPCR C09B0035-00 [I,C*]; C09B0035-46 [I,A]; C09B0035-64 [I,A]; C09B0062-44 [I,C*]; C09B0062-513 [I,A]; C09B0067-00 [I,C*]; C09B0067-22 [I,A]
CC 41-3 (Dyes, Organic Pigments, Fluorescent Brighteners, and Photographic Sensitizers)
Section cross-reference(s): 45
ST polyazo reactive dye prodn leather
IT Reactive dyeing
(of leather and other substrates with prepared polyazo dyes)
IT leather
(production of polyazo reactive dyes for)

10/577,776-337287-EIC SEARCH

IT Reactive azo dyes
(vinyl sulfone; production of polyazo reactive dyes for leather)

IT 252011-02-2P
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(black dye; production of polyazo reactive dyes)

IT 252011-06-6P 252011-07-7P 252011-08-8P
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(black dye; production of polyazo reactive dyes for leather)

IT 252011-13-5P
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(blue dye; production of polyazo reactive dyes for leather)

IT 252011-09-9P
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(dark green dye; production of polyazo reactive dyes for leather)

IT 252011-03-3P 252011-04-4P 252011-05-5P
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(dye; production of polyazo reactive dyes)

IT 252011-10-2P 252011-11-3P
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(green dye; production of polyazo reactive dyes for leather)

IT 252011-12-4P
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(navy blue dye; production of polyazo reactive dyes for leather)

OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)

L39 ANSWER 6 OF 14 HCAPLUS COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 1997:500246 HCAPLUS Full-text
DOCUMENT NUMBER: 127:110290
ORIGINAL REFERENCE NO.: 127:21259a,21262a
TITLE: Polyazo dyes and their use
INVENTOR(S): Lamm, Gunther; Reichelt, Helmut; Wiesenfeldt, Matthias
PATENT ASSIGNEE(S): BASF A.-G., Germany
SOURCE: Ger. Offen., 32 pp.
CODEN: GWXXBX
DOCUMENT TYPE: ~~Patent~~
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO. -----	KIND ----	DATE -----	APPLICATION NO. -----	DATE
DE 19548785	A1	19970703	DE 1995-19548785	1995 1227
WO 9724405	A1	19970710	WO 1996-EP5632	1996 1216

10/577,776-337287-EIC SEARCH

W: BR, CN, JP, KR, MX, US

RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC,
NL, PT, SE

EP 873376 A1 19981028 EP 1996-943964

1996
1216

<--

R: DE, ES, FR, GB, IT, PT

BR 9612248 A 19990713 BR 1996-12248

1996
1216

<--

US 6011141 A 20000104 US 1998-91360

1998
0619

<--

PRIORITY APPLN. INFO.: DE 1995-19548785 A

1995
1227

<--

WO 1996-EP5632 W

1996
1216

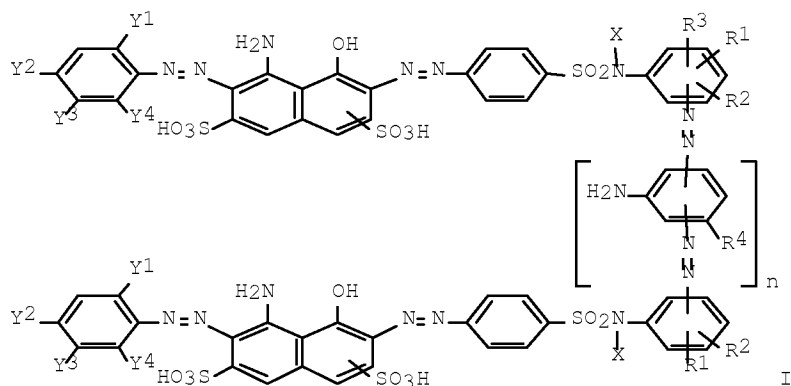
<--

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

OTHER SOURCE(S): MARPAT 127:110290

ED Entered STN: 08 Aug 1997

GI



AB The dyes (I; R1 = H, alkyl, halogen, carboxy, alkoxy, alkoxy, sulfo; R2 = H, alkyl, halogen, carboxy, alkoxy, alkoxy, sulfo; R1R2 may form an amide-containing annellated ring; R3 = H, OH, alkoxy, alkanoyloxy, benzoyloxy; R4 = H, amino, OH; X = H, alkyl; Y1 = H, sulfo, pyrrolidinyl-, piperidinyl-, or morpholinylsulfonyl, other organosulfonyl, substituted 1,2,4-oxadiazol-5-yl; Y2 = NO2, arylsulfonamido, or Y1; Y3 = H, sulfo, pyrrolidinyl-, piperidinyl-, or morpholinylsulfonyl, other organosulfonyl; Y2Y3 may form an amide-containing annellated ring; Y4 = H; Y3Y4 may form an amide-containing annellated ring) are suitable for application to natural or synthetic substrates. I show good fastness properties on ~~leather~~ and wool in particular. Thus, 5-(2-amino-5-sulfophenyl)-3-phenyl-1,2,4-oxadiazole-1-amino-8-naphthol-3,5-disulfonic acid was prepared and coupled with diazotized N-(4-hydroxyphenyl)-4-aminobenzenesulfonamide to provide an intermediate (A).

4-(Vinylsulfonyl)aniline-1-amino-8-naphthol-3,5-disulfonic acid was prepared and coupled with tetrazotized N-(4-aminophenyl)-4-aminobenzenesulfonamide to provide a

10/577,776-337287-EIC SEARCH

product which was coupled with A, resulting in a dye which colored wool and leather in fast blue to navy blue shades.

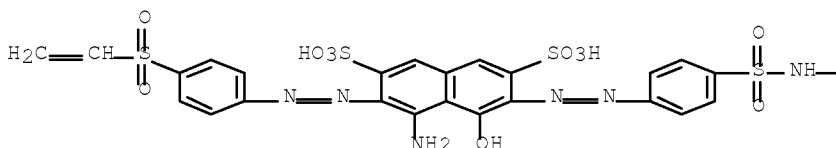
IT 192320-55-1P

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(blue dye; preparation of polyazo dyes for leather and wool)

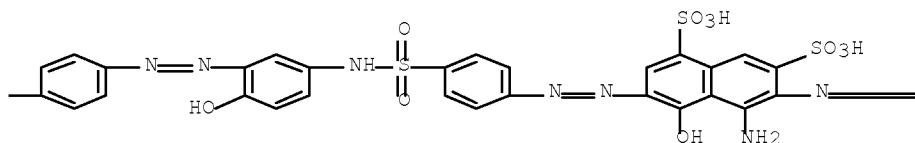
RN 192320-55-1 HCAPLUS

CN 1,7-Naphthalenedisulfonic acid,
5-amino-3-[2-[4-[[[3-[2-[4-[[4-[2-[8-amino-7-[2-[4-(ethenylsulfonyl)phenyl]diazenyl]-1-hydroxy-3,6-disulfo-2-naphthalenyl]diazenyl]phenyl]sulfonyl]amino]phenyl]diazenyl]-4-hydroxyphenyl]amino]sulfonyl]phenyl]diazenyl]-4-hydroxy-6-[2-[2-(3-phenyl-1,2,4-oxadiazol-5-yl)-4-sulfophenyl]diazenyl]- (CA INDEX NAME)

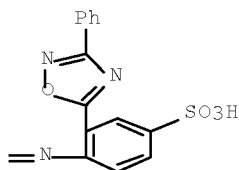
PAGE 1-A



PAGE 1-B



PAGE 1-C



IPCI C09B0033-18 [ICM,6]; C09B0035-64 [ICS,6]; C09B0035-00 [ICS,6,C*]; C09B0062-513 [ICS,6]; C09B0062-44 [ICS,6,C*]; D06P0001-39 [ICS,6]; D06P0001-384 [ICS,6]; D06P0001-38 [ICS,6,C*]; C07C0317-32 [ICS,6]; C07C0317-00 [ICS,6,C*]; C07C0311-21 [ICS,6]; C07C0311-00 [ICS,6,C*]; C07D0271-06 [ICS,6]; C09B0033-10 [ICA,6]; C09B0033-00 [ICA,6,C*]; D06P0003-16 [ICA,6]; D06P0003-24 [ICA,6]; D06P0003-32 [ICA,6]; D06P0003-04 [ICA,6,C*]; C07C0309-50 [ICA,6]; C07C0309-00

10/577,776-337287-EIC SEARCH

[ICA,6,C*]; C07D0271-06 [ICA,6]; C07D0271-00 [ICA,6,C*];
C07D0209-48 [ICA,6]; C07D0413-04 [ICA,6]; C07D0413-00 [ICA,6,C*];
C07D0295-10 [ICA,6]; C07D0295-00 [ICA,6,C*]; C07D0209-46 [ICA,6];
C07D0209-00 [ICA,6,C*]
IPCR C09B0035-00 [I,C*]; C09B0035-64 [I,A]; C09B0062-44 [I,C*];
C09B0062-513 [I,A]
CC 41-3 (Dyes, Organic Pigments, Fluorescent Brighteners, and
Photographic Sensitizers)
Section cross-reference(s): 40, 45
ST polyazo dye prepn wool leather
IT Azo dyes
Leather
(preparation of polyazo dyes for leather and wool)
IT Textiles
(wool; preparation of polyazo dyes for leather and wool)
IT 192320-55-1P 192320-56-2P
RL: IMF (Industrial manufacture); TEM (Technical or engineered
material use); PREP (Preparation); USES (Uses)
(blue dye; preparation of polyazo dyes for leather and
wool)
IT 72089-20-4P
RL: IMF (Industrial manufacture); TEM (Technical or engineered
material use); PREP (Preparation); USES (Uses)
(blue gray dye; preparation of polyazo dyes for leather
and wool)
IT 192320-59-5P 192320-61-9P
RL: IMF (Industrial manufacture); RCT (Reactant); PREP
(Preparation); RACT (Reactant or reagent)
(coupling component; preparation of polyazo dyes for leather
and wool)
IT 90-20-0, 1-Amino-8-naphthol-3,6-disulfonic acid 108-45-2,
1,3-Benzenediamine, reactions 6483-81-4,
1-Amino-8-naphthol-3,5-disulfonic acid 188357-45-1
RL: RCT (Reactant); RACT (Reactant or reagent)
(coupling component; preparation of polyazo dyes for leather
and wool)
IT 192394-99-3P
RL: IMF (Industrial manufacture); TEM (Technical or engineered
material use); PREP (Preparation); USES (Uses)
(dark blue dye; preparation of polyazo dyes for leather
and wool)
IT 7019-01-4, 4-Aminodiphenyl sulfone 21626-70-0,
4-(Morpholinosulfonyl)aniline 25781-90-2,
4-(Vinylsulfonyl)aniline 40307-20-8, Phenyl
4-aminobenzenesulfonate 52569-87-6,
N-(4-Hydroxyphenyl)-4-aminobenzenesulfonamide 76091-48-0,
5-(2-Amino-5-sulfophenyl)-3-phenyl-1,2,4-oxadiazole 192320-60-8
192320-62-0
RL: RCT (Reactant); RACT (Reactant or reagent)
(diazo component; preparation of polyazo dyes for leather
and wool)
IT 192320-57-3P
RL: BYP (Byproduct); TEM (Technical or engineered material use);
PREP (Preparation); USES (Uses)
(gray dye byproduct; preparation of polyazo dyes for leather
and wool)
IT 192395-00-9P
RL: IMF (Industrial manufacture); TEM (Technical or engineered
material use); PREP (Preparation); USES (Uses)
(gray dye; preparation of polyazo dyes for leather and
wool)
IT 16803-97-7, N-(4-Aminophenyl)-4-aminobenzenesulfonamide
192320-58-4
RL: RCT (Reactant); RACT (Reactant or reagent)
(tetraazo component; preparation of polyazo dyes for leather
and wool)
OS.CITING REF COUNT: 3 THERE ARE 3 CAPLUS RECORDS THAT CITE

10/577,776-337287-EIC SEARCH

THIS RECORD (3 CITINGS)

L39 ANSWER 7 OF 14 HCAPLUS COPYRIGHT 2010 ACS on STN
 ACCESSION NUMBER: 1996:126623 HCAPLUS Full-text
 DOCUMENT NUMBER: 124:148715
 ORIGINAL REFERENCE NO.: 124:27629a,27632a
 TITLE: Dyes containing nucleophilic and electrophilic groups and their use in coloration with polymerization
 INVENTOR(S): Greenwood, David; Renfrew, Andrew Hunter
 Morris; Brennan, Colin Michael
 PATENT ASSIGNEE(S): Zeneca Ltd., UK
 SOURCE: PCT Int. Appl., 35 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: ~~Patent~~
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9532246	A1	19951130	WO 1995-GB949	1995 0427

<--

W: AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LT, LU, LV, MD, MG, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TT
 RW: KE, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG

AU 9523143	A	19951218	AU 1995-23143	1995 0427
------------	---	----------	---------------	--------------

<--

EP 759957	A1	19970305	EP 1995-916772	1995 0427
-----------	----	----------	----------------	--------------

<--

R: CH, DE, FR, GB, IT, LI

CN 1151173	A	19970604	CN 1995-193670	1995 0427
------------	---	----------	----------------	--------------

<--

JP 10501007	T	19980127	JP 1995-530111	1995 0427
-------------	---	----------	----------------	--------------

<--

PRIORITY APPLN. INFO.: GB 1994-10035 A 1994
0519

<--

WO 1995-GB949	W	1995 0427
---------------	---	--------------

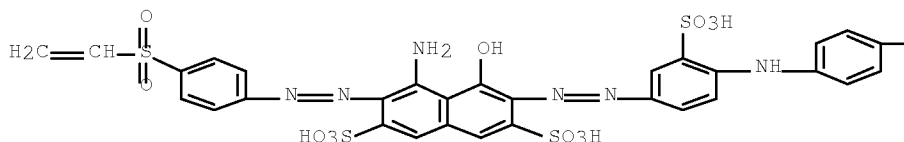
ED Entered STN: 01 Mar 1996

AB A dye comprises mols. which contain a nucleophilic group and an electrophilic group such that (1) the mols. are capable of joining together by formation of a covalent bond between the nucleophilic group of one mol. and the electrophilic group of another mol. when the dye is heated, acidified, or basified, and (2) the nucleophilic group is or comprises a secondary amino group which is free from aryl substituents. Thus, 4-CH₂:CHSO₂C₆H₄NH₂ was diazotized and coupled with 1-phenylpiperazine to give an azo compound, which dyed leather a fast yellow shade from an aqueous bath acidified with HCO₂H.

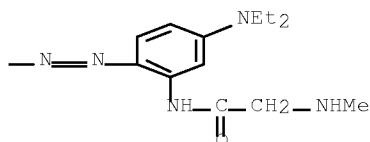
10/577,776-337287-EIC SEARCH

IT 173783-54-58
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (black; preparation of polymerizable ~~leather~~ dyes containing nucleophilic and electrophilic groups)
 RN 173783-54-5 HCAPLUS
 CN 2,7-Naphthalenedisulfonic acid,
 4-amino-6-[2-[4-[4-[2-[4-(diethylamino)-2-[[2-(methylamino)acetyl]amino]phenyl]diazenyl]phenyl]amino]-3-sulphophenyl]diazenyl]-3-[2-[4-(ethenylsulfonyl)phenyl]diazenyl]-5-hydroxy- (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



IPCI C09B0062-503 [ICM,6]; C09B0062-44 [ICM,6,C*]; C09B0069-10 [ICS,6];
 C09B0069-00 [ICS,6,C*]; D06P0001-00 [ICS,6]
 IPCR C08G0073-00 [I,C*]; C08G0073-02 [I,A]; C09B0062-44 [I,C*];
 C09B0062-503 [I,A]; C09B0069-00 [I,C*]; C09B0069-10 [I,A];
 D06P0001-00 [I,C*]; D06P0001-00 [I,A]; D06P0003-04 [I,C*];
 D06P0003-32 [I,A]; D06P0005-02 [I,C*]; D06P0005-02 [I,A];
 D06P0005-20 [I,C*]; D06P0005-20 [I,A]
 CC 41-3 (Dyes, Organic Pigments, Fluorescent Brighteners, and
 Photographic Sensitizers)
 Section cross-reference(s): 35, 45
 ST polymerizable azo dye ~~leather~~; electrophilic
 nucleophilic group polymerizable dye
 IT Dyes, azo
~~leather~~
 (preparation of polymerizable ~~leather~~ dyes containing
 nucleophilic and electrophilic groups)
 IT Polymerization
 (oligomerization, of azo dyes in dyeing of ~~leather~~
 with dyes containing nucleophilic and electrophilic groups)
 IT 173783-54-58
 RL: IMF (Industrial manufacture); TEM (Technical or engineered
 material use); PREP (Preparation); USES (Uses)
 (black; preparation of polymerizable ~~leather~~ dyes containing
 nucleophilic and electrophilic groups)
 IT 90-20-0, H Acid 92-54-6, 1-Phenylpiperazine 69376-06-3
 173783-55-6
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (coupling component; preparation of polymerizable ~~leather~~
 dyes containing nucleophilic and electrophilic groups)
 IT 119-70-0, 4,4'-Diaminodiphenylamine-2-sulfonic acid 18759-96-1,

10/577,776-337287-EIC SEARCH

(3-Aminobenzyl)methylamine 25781-90-2, 4-Aminophenyl vinyl sulfone

RL: RCT (Reactant); RACT (Reactant or reagent)
(diazo component; preparation of polymerizable ~~leather~~ dyes containing nucleophilic and electrophilic groups)

IT 173783-53-4P

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(preparation of polymerizable ~~leather~~ dyes containing nucleophilic and electrophilic groups)

IT 173783-52-3P

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(red; preparation of polymerizable ~~leather~~ dyes containing nucleophilic and electrophilic groups)

IT 173783-51-2P

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(yellow; preparation of polymerizable ~~leather~~ dyes containing nucleophilic and electrophilic groups)

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L39 ANSWER 8 OF 14 HCAPLUS COPYRIGHT 2010 ACS on STN

ACCESSION NUMBER: 1995:652367 HCAPLUS Full-text

DOCUMENT NUMBER: 124:10879

ORIGINAL REFERENCE NO.: 124:2235a,2238a

TITLE: Trisazo compounds and their use for dyeing and in inks

INVENTOR(S): Ogino, Kazuya; Tamura, Yuriko; Omura, Takashi; Fujita, Mahito; Kawashita, Hideo; Aburada, Koji

PATENT ASSIGNEE(S): Sumitomo Chemical Co., Ltd., Japan; Taoka Chemical Co., Ltd.

SOURCE: Eur. Pat. Appl., 22 pp.
CODEN: EPXXDW

DOCUMENT TYPE: ~~Patent~~

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO. -----	KIND ----	DATE -----	APPLICATION NO. -----	DATE
EP 645434	A1	19950329	EP 1994-115154	1994 0926

<--

R: CH, DE, FR, GB, IT, LI				
JP 07166081	A	19950627	JP 1994-220012	1994 0914

<--

US 5489671	A	19960206	US 1994-313642	1994 0927
------------	---	----------	----------------	--------------

<--

PRIORITY APPLN. INFO.:	JP 1993-241285	A	1993 0928
------------------------	----------------	---	--------------

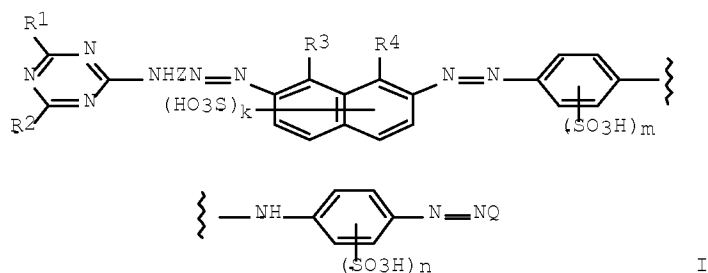
<--

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

OTHER SOURCE(S): MARPAT 124:10879

ED Entered STN: 04 Jul 1995

GI



AB Salts of trisazo compds. I [Q is (un)substituted Ph or naphthyl; R1, R2 = OR, SR, NR2, heterocycllyl linked through N (each R = H, (un)substituted alkyl, Ph, or naphthyl); R3, R4 = OH, NH2; R3 ≠ R4; Z = (un)substituted phenylene; k = 1, 2; m, n = 0, 1; m ≠ n] can be used for dyeing fibrous material, paper, or ~~leather~~ and give (jet-printing) inks which are excellent in storage stability and give a clear black printed image having excellent water resistance and lightfastness. Condensation of cyanuric chloride with m-H2NC6H4NHAc and 2 mol Et2N(CH2)3NH2, deacetylation, diazotization and coupling under weakly acidic conditions with H Acid ← 4,2-H2N(HO3S)C6H3NHC6H4NH2-4 → m-HOC6H4NH2 gave a I salt with λ_{max} 630 nm.

IT 171370-24-4P

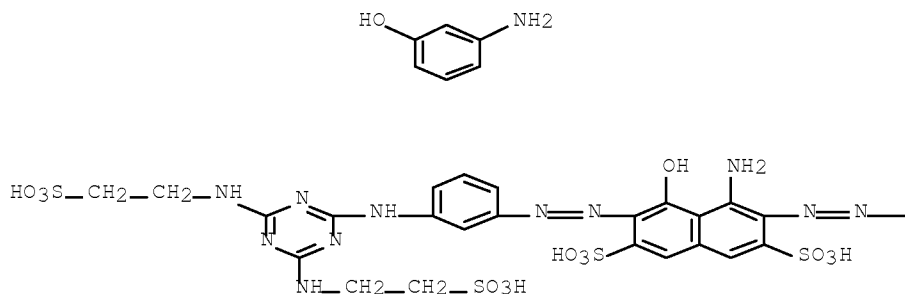
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

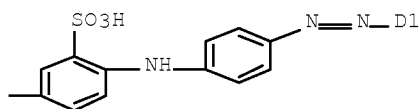
(preparation of trisazo compds. for coloration of jet-printing inks)

RN 171370-24-4 HCAPLUS

CN 2,7-Naphthalenedisulfonic acid,
4-amino-3-[[4-[[4-[(aminohydroxyphenyl)azo]phenyl]amino]-3-sulfophenyl]azo]-6-[[3-[[4,6-bis[(2-sulfoethyl)amino]-1,3,5-triazin-2-yl]amino]phenyl]azo]-5-hydroxy- (9CI) (CA INDEX NAME)

PAGE 1-A





IPCI C09B0035-46 [ICM,6]; C09B0035-00 [ICM,6,C*]; C09D0011-00 [ICS,6];
 C09D0011-16 [ICS,6]
 IPCR C09B0035-00 [I,C*]; C09B0035-46 [I,A]; C09D0011-00 [I,C*];
 C09D0011-00 [I,A]
 CC 41-3 (Dyes, Organic Pigments, Fluorescent Brighteners, and
 Photographic Sensitizers)
 Section cross-reference(s): 40, 42, 43, 45
 IT ~~Leather~~
 (trisazo compds. for dyeing of)
 IT 171370-23-3P ~~171370-24-4P~~
 RL: IMF (Industrial manufacture); TEM (Technical or engineered
 material use); PREP (Preparation); USES (Uses)
 (preparation of trisazo compds. for coloration of jet-printing inks)
 OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE
 THIS RECORD (1 CITINGS)

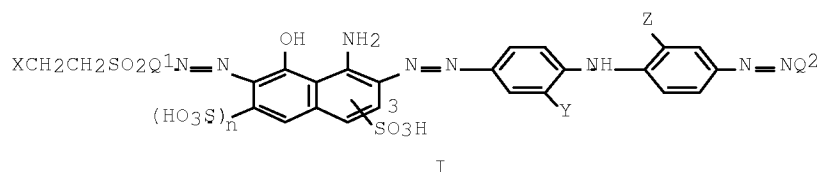
L39 ANSWER 9 OF 14 HCAPLUS COPYRIGHT 2010 ACS on STN
 ACCESSION NUMBER: 1995:267119 HCAPLUS Full-text
 DOCUMENT NUMBER: 122:108661
 ORIGINAL REFERENCE NO.: 122:20413a,20416a
 TITLE: Trisazo dyes, dyeing fibers, paper and
~~leather~~ therewith, and inks containing
 the same
 INVENTOR(S): Tamura, Yuriko; Ogino, Kazuya; Fujita,
 Masato; Fujita, Masato; Harada, Naoki;
 Kawashita, Hideo; Yuda, Koji
 PATENT ASSIGNEE(S): Sumitomo Chemical Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 19 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: ~~Patent~~
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	
JP 06172667	A	19940621	JP 1992-327734	1992 1208

PRIORITY APPLN. INFO.: <--
 JP 1992-327734
 1992
 1208

OTHER SOURCE(S): MARPAT 122:108661
 ED Entered STN: 01 Jan 1995
 GI

10/577,776-337287-EIC SEARCH



AB The title dyes have the general formula I (free-acid form) [Q1 = (un)substituted phenylene, naphthylene; Q2 = (un)substituted Ph, naphthyl; X = (un)substituted amino, alkoxy, PhO, naphthyloxy, alkylthio, PhS, naphthylthio, heterocyclic group; Y, Z = H, sulfo, excluding Y = Z; n = 0, 1]. 4,4'-Diaminodiphenylamine-2-sulfonic acid was tetrazotized, coupled with H acid then diazotized 4-(2-sulfatoethylsulfonyl)aniline then m-aminophenol, condensed with monoethanolamine, and salted to give I (X = NHCH2CH2OH; Q1 = p-phenylene; n = 1; 3-SO3H; Y = sulfo; Z = H; Q2 = m-aminophenolyl) (free-acid form), fast black on rayon.

IT 159959-58-7P 159959-59-8P
159959-60-1P 159959-61-2P
159959-62-3P 159959-63-4P

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(trisazo dyes for fibers, paper, leather and inks)

RN 159959-58-7 HCAPLUS

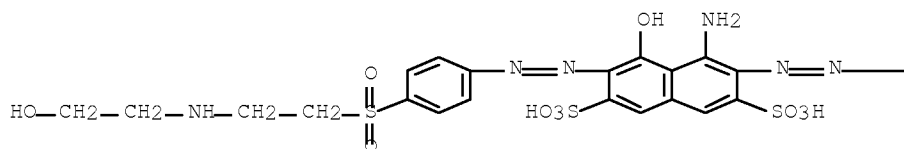
CN 2,7-Naphthalenedisulfonic acid,
4-amino-3-[[4-[[4-[(aminohydroxyphenyl)azo]phenyl]amino]-3-sulfo-phenyl]azo]-5-hydroxy-6-[[4-[[2-[(2-hydroxyethyl)amino]ethyl]sulfonyl]phenyl]azo]- (9CI) (CA INDEX NAME)

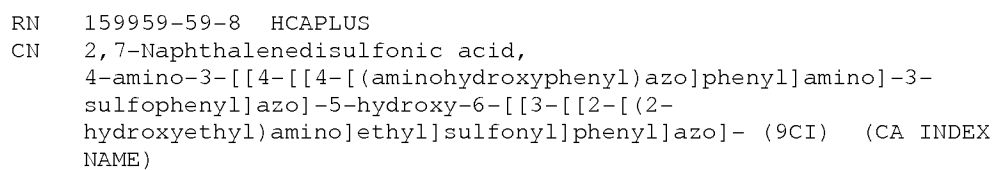
PAGE 1-A



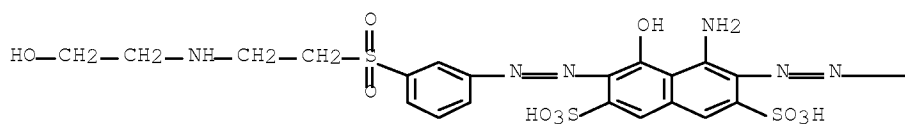
D1-NH2

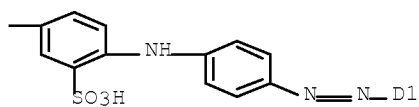
D1-OH





PAGE 1-A



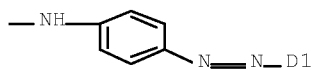
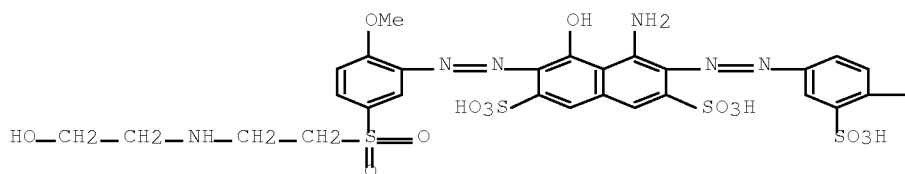


RN 159959-60-1 HCAPLUS
 CN 2,7-Naphthalenedisulfonic acid,
 4-amino-3-[[4-[[4-[(aminohydroxyphenyl)azo]phenyl]amino]-3-
 sulfophenyl]azo]-5-hydroxy-6-[[5-[[2-[(2-
 hydroxyethyl)amino]ethyl]sulfonyl]-2-methoxyphenyl]azo]- (9CI)
 (CA INDEX NAME)



D1-NH₂

D1-OH



10/577,776-337287-EIC SEARCH

RN 159959-61-2 HCAPLUS
 CN 2,7-Naphthalenedisulfonic acid,
 4-amino-3-[[4-[[4-[(aminohydroxyphenyl)azo]phenyl]amino]-3-
 sulfophenyl]azo]-5-hydroxy-6-[[3-[[2-[(2-
 hydroxyethyl)amino]ethyl]sulfonyl]-4-methoxyphenyl]azo]- (9CI)
 (CA INDEX NAME)

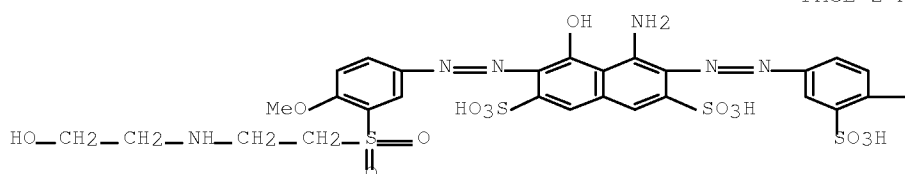
PAGE 1-A



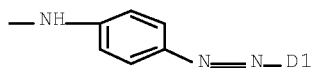
D1-NH₂

D1-OH

PAGE 2-A



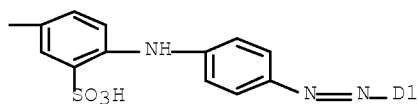
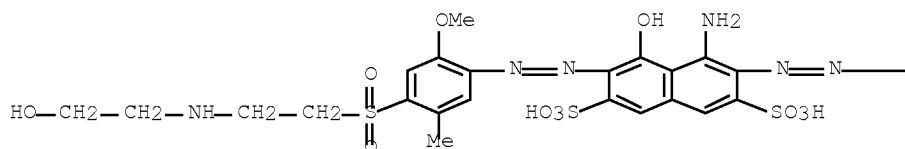
PAGE 2-B



RN 159959-62-3 HCAPLUS
 CN 2,7-Naphthalenedisulfonic acid,
 4-amino-3-[[4-[[4-[(aminohydroxyphenyl)azo]phenyl]amino]-3-
 sulfophenyl]azo]-5-hydroxy-6-[[4-[[2-[(2-
 hydroxyethyl)amino]ethyl]sulfonyl]-2-methoxy-5-methylphenyl]azo]-
 (9CI) (CA INDEX NAME)

D1—NH₂

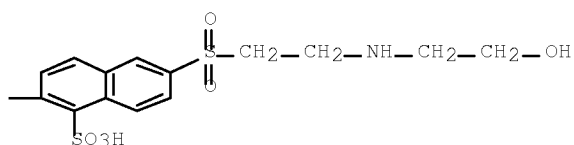
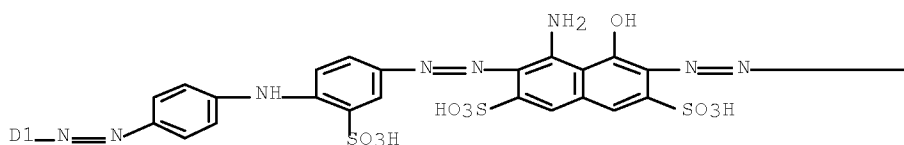
D1—OH



RN 159959-63-4 HCAPLUS
 CN 2,7-Naphthalenedisulfonic acid,
 4-amino-3-[[4-[[4-[(aminohydroxyphenyl)azo]phenyl]amino]-3-
 sulfophenyl]azo]-5-hydroxy-6-[[6-[[2-[(2-
 hydroxyethyl)amino]ethyl]sulfonyl]-1-sulfo-2-naphthalenyl]azo]-
 (9CI) (CA INDEX NAME)

D1—NH₂

D1—OH



IPCI C09B0035-38 [ICM,5]; C09B0035-00 [ICM,5,C*]; C09D0011-00 [ICS,5];
 D06P0001-06 [ICS,5]; D06P0001-02 [ICS,5,C*]
 IPCR C09B0035-00 [I,C*]; C09B0035-38 [I,A]; C09D0011-00 [I,C*];
 C09D0011-00 [I,A]; C09D0011-02 [I,C*]; C09D0011-02 [I,A];
 D06P0001-02 [I,C*]; D06P0001-06 [I,A]
 CC 41-3 (Dyes, Organic Pigments, Fluorescent Brighteners, and
 Photographic Sensitizers)
 ST trisazo reactive dye; azo reactive dye; fiber azo reactive dye;
 paper azo reactive dye; ~~leather~~ azo reactive dye; ink
 azo reactive dye; rayon azo reactive dye
 IT Inks
~~leather~~
 Paper
 (trisazo dyes for fibers, paper, ~~leather~~ and inks)
 IT Rayon, processes
 RL: PEP (Physical, engineering or chemical process); PROC
 (Process)
 (trisazo dyes for fibers, paper, ~~leather~~ and inks)
 IT Dyes, reactive
 (azo, trisazo dyes for fibers, paper, ~~leather~~ and
 inks)
 IT 159959-58-7P 159959-59-8P
 159959-60-1P 159959-61-2P
 159959-62-3P 159959-63-4P
 RL: IMF (Industrial manufacture); TEM (Technical or engineered
 material use); PREP (Preparation); USES (Uses)
 (trisazo dyes for fibers, paper, ~~leather~~ and inks)
 IT 90-20-0, H Acid 119-70-0, 4,4'-Diaminodiphenylamine-2-sulfonic
 acid 141-43-5, Monoethanolamine, reactions 591-27-5,
 m-Aminophenol 2494-89-5, 4-(2-Sulfatoethylsulfonyl)aniline
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (trisazo dyes for fibers, paper, ~~leather~~ and inks)
 OS.CITING REF COUNT: 1 THERE ARE 1 CAPLUS RECORDS THAT CITE
 THIS RECORD (1 CITINGS)

L39 ANSWER 10 OF 14 HCAPLUS COPYRIGHT 2010 ACS on STN
 ACCESSION NUMBER: 1994:79435 HCAPLUS Full-text
 DOCUMENT NUMBER: 120:79435
 ORIGINAL REFERENCE NO.: 120:14265a,14268a
 TITLE: Trisazo compounds, their use in dyeing fibers
 or paper or ~~leather~~, and

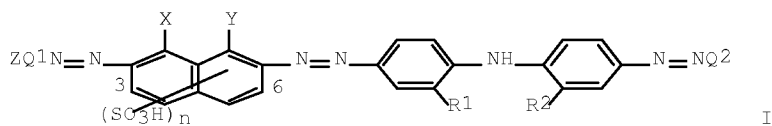
10/577,776-337287-EIC SEARCH

INVENTOR(S): jet-printing inks containing them
 Ogino, Kazuya; Tamura, Yuriko; Harada, Naoki;
 Omura, Takashi; Kawashita, Hideo; Oota,
 Mitsuhiro
 PATENT ASSIGNEE(S): Sumitomo Chemical Co., Ltd., Japan; Taoka
 Chemical Co Ltd
 SOURCE: Jpn. Kokai Tokkyo Koho, 17 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 05246977	A	19930924	JP 1992-46811	1992 0304

PRIORITY APPLN. INFO.: <-- JP 1992-46811
 1992
 0304

OTHER SOURCE(S): MARPAT 120:79435
 ED Entered STN: 19 Feb 1994
 GI



AB The compds. have free-acid form I [Q1 = (un)substituted phenylene or naphthylene; Q2 = (un)substituted Ph or naphthyl; Z = SO₂CH₂CH₂OH, SO₂CH₂CH₂SO₃H; n = 1, 2; one of X and Y = OH, while the other = NH₂; one of R₁ and R₂ is H, while the other = SO₃H; when X = OH and Y = NH₂, R₁ = H and R₂ = SO₃H]. 4-HOCH₂CH₂SO₂C₆H₄NH₂ was diazotized, coupled with H acid, and the resulting coupling product and 3-HOC₆H₄NH₂ were coupled with tetrazotized 4,4'-diaminodiphenylamine-2-sulfonic acid to give I (Z = HOCH₂CH₂SO₂; Q1 = p-C₆H₄; n = 2 at the 3- and 6-positions; X = OH; Y = NH₂; R₁ = SO₃H; R₂ = H; Q2 = aminohydroxyphenyl), λ_{max} 680 nm, bluish black in paper.

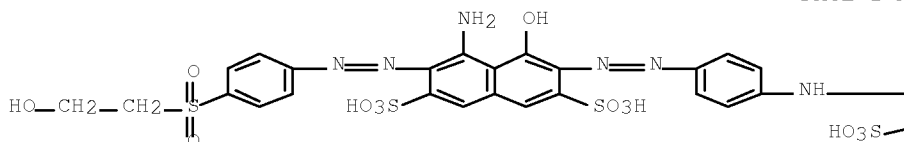
IT 152333-76-18

RL: PREP (Preparation)
 (manufacture of, as black dye for paper)

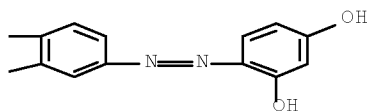
RN 152333-76-1 HCAPLUS

CN 2,7-Naphthalenedisulfonic acid,
 4-amino-6-[2-[4-[4-[2-(2,4-dihydroxyphenyl)diazenyl]-2-
 sulfophenyl]amino]phenyl]diazenyl]-5-hydroxy-3-[2-[4-[(2-
 hydroxyethyl)sulfonyl]phenyl]diazenyl]- (CA INDEX NAME)

PAGE 1-A

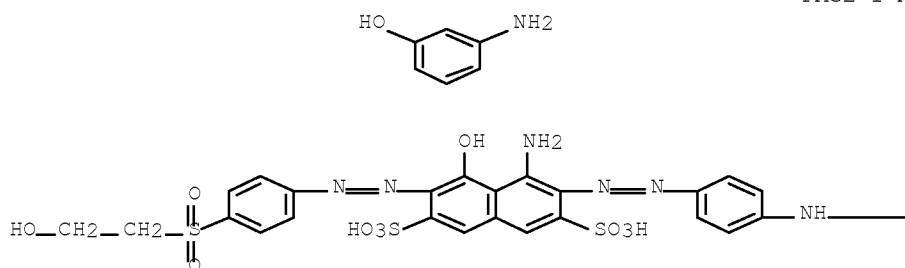


PAGE 1-B

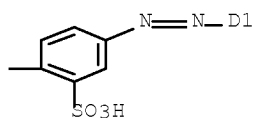


IT 152689-99-1P
 RL: PREP (Preparation)
 (manufacture of, as black dye for paper and jet-printing inks)
 RN 152689-99-1 HCAPLUS
 CN 2,7-Naphthalenedisulfonic acid,
 4-amino-3-[[4-[[4-(aminohydroxyphenyl)azo]-2-
 sulfonyl]amino]phenyl]azo]-5-hydroxy-6-[[4-(2-
 hydroxyethyl)sulfonyl]phenyl]azo]- (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B

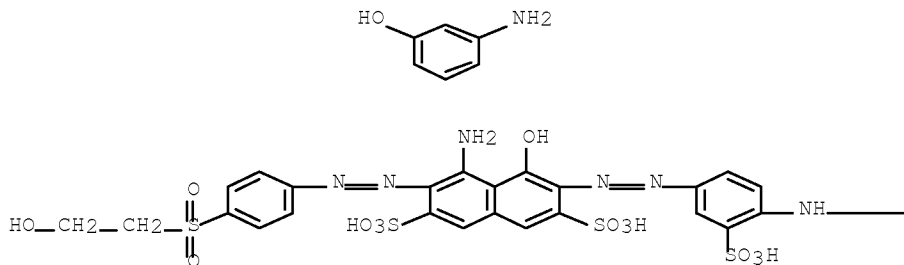


IT 152690-00-1P
 RL: PREP (Preparation)
 (manufacture of, as black dye for paper and rayon and jet-printing
 inks)
 RN 152690-00-1 HCAPLUS
 CN 2,7-Naphthalenedisulfonic acid,
 4-amino-6-[[4-[[4-(aminohydroxyphenyl)azo]phenyl]amino]-3-
 sulfophenyl]azo]-5-hydroxy-3-[[4-(2-

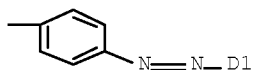
10/577,776-337287-EIC SEARCH

hydroxyethyl)sulfonyl]phenyl]azo]- (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



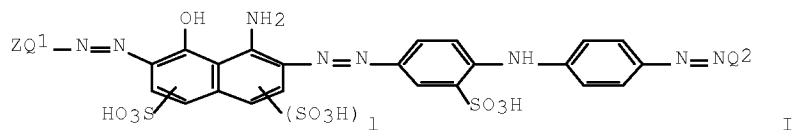
IPCI C07C0309-50 [ICM,5]; C07C0309-00 [ICM,5,C*]; C09B0035-46 [ICS,5];
 C09B0035-00 [ICS,5,C*]; C09D0011-00 [ICS,5]; D06P0001-39 [ICS,5];
 D06P0003-32 [ICS,5]; D06P0003-04 [ICS,5,C*]; D21H0017-67 [ICS,5];
 D21H0017-00 [ICS,5,C*]
 IPCR C09B0035-00 [I,C*]; C09B0035-46 [I,A]; C07C0309-00 [I,C*];
 C07C0309-50 [I,A]; C09D0011-00 [I,C*]; C09D0011-00 [I,A];
 D06P0001-39 [I,C*]; D06P0001-39 [I,A]; D06P0003-04 [I,C*];
 D06P0003-32 [I,A]; D21H0017-00 [I,C*]; D21H0017-67 [I,A]
 CC 41-3 (Dyes, Organic Pigments, Fluorescent Brighteners, and
 Photographic Sensitizers)
 ST azo dye paper ~~leather~~ ink
 IT Dyeing
 (of fibers and ~~leather~~ and paper with black trisazo
 compds.)
 IT ~~leather~~
 Paper
 (trisazo dyes for)
 IT Dyes, azo
 (trisazo, for fibers and ~~leather~~ and paper and
 jet-printing inks)
 IT 152333~76~1P
 RL: PREP (Preparation)
 (manufacture of, as black dye for paper)
 IT 152689~99~1P
 RL: PREP (Preparation)
 (manufacture of, as black dye for paper and jet-printing inks)
 IT 152690~00~1P
 RL: PREP (Preparation)
 (manufacture of, as black dye for paper and rayon and jet-printing
 inks)

10/577,776-337287-EIC SEARCH

L39 ANSWER 11 OF 14 HCAPLUS COPYRIGHT 2010 ACS on STN
 ACCESSION NUMBER: 1993:193626 HCAPLUS Full-text
 DOCUMENT NUMBER: 118:193626
 ORIGINAL REFERENCE NO.: 118:33249a,33252a
 TITLE: Trisazo dyes, their preparation and use in dyeing and printing, and inks containing them
 INVENTOR(S): Ogino, Kazuya; Akahori, Kingo; Harada, Naoki; Kayane, Yutaka; Kawashita, Hideo; Ohta, Mituhiro
 PATENT ASSIGNEE(S): Sumitomo Chemical Co., Ltd., Japan
 SOURCE: Eur. Pat. Appl., 25 pp.
 CODEN: EPXXDW
 DOCUMENT TYPE: ~~Patent~~
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 518266	A1	19921216	EP 1992-109702	1992 0609
<--				
R: CH, DE, FR, GB, IT, LI, NL JP 04363363	A	19921216	JP 1991-138010	1991 0610
<--				
US 5488101	A	19960130	US 1992-894561	1992 0605
<--				
PRIORITY APPLN. INFO.:			JP 1991-138010	A 1991 0610
<--				

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT
 OTHER SOURCE(S): MARPAT 118:193626
 ED Entered STN: 14 May 1993
 GI



AB Black dyes I [Q1 = (un)substituted phenylene or naphthylene; Q2 = (un)substituted Ph or naphthyl; Z = SO₂CH₂CH₂OH, SO₂CH₂CH₂SO₃H; l = 0, 1] or their salts have suitable solubility for use in jet-printing inks without the involvement of benzidine in their manufacture. Thus, 4,4'-diaminodiphenylamine-2-sulfonic acid was tetrazotized, coupled with 1 mol H acid under acidic conditions, the monoazo intermediate coupled with diazotized 4-HOCH₂CH₂SO₂C₆H₄NH₂ under alkaline conditions, and the disazo diazonium intermediate coupled with 3-H₂NC₆H₄OH under alkaline conditions to give a I with λ_{max} 625 nm, a jet-printing ink from which showed no nozzle clogging for a long time.

IT 147140-52-1P 147140-53-2P
 147140-54-3P 147140-55-4P
 147140-56-5P 147140-57-6P
 147140-58-7P 147140-59-8P

10/577,776-337287-EIC SEARCH

147140-60-1P 147140-61-2P
147140-62-3P 147140-63-4P
147160-50-7P 147281-93-4P
147281-94-5P

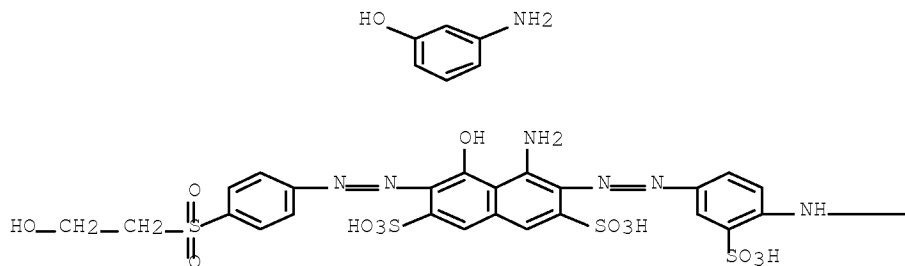
RL: PREP (Preparation)

(manufacture of, as black dye for jet-printing inks)

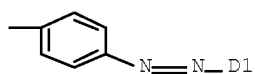
RN 147140-52-1 HCAPLUS

CN 2,7-Naphthalenedisulfonic acid,
4-amino-3-[[4-[[4-[(aminohydroxyphenyl)azo]phenyl]amino]-3-sulfo-
phenyl]azo]-5-hydroxy-6-[[4-[(2-hydroxyethyl)sulfonyl]phenyl]azo]- (9CI) (CA INDEX NAME)

PAGE 1-A



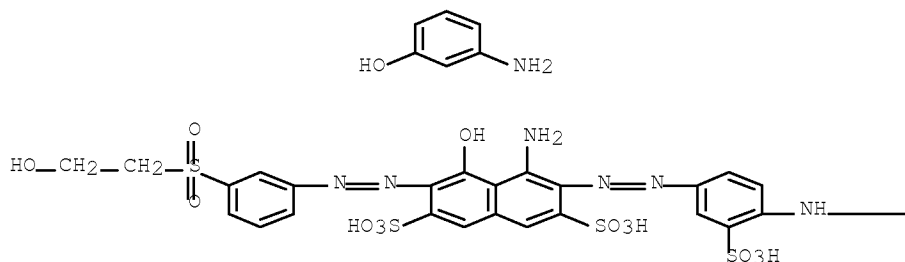
PAGE 1-B



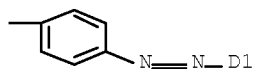
RN 147140-53-2 HCAPLUS

CN 2,7-Naphthalenedisulfonic acid,
4-amino-3-[[4-[[4-[(aminohydroxyphenyl)azo]phenyl]amino]-3-sulfo-
phenyl]azo]-5-hydroxy-6-[[3-[(2-hydroxyethyl)sulfonyl]phenyl]azo]- (9CI) (CA INDEX NAME)

PAGE 1-A

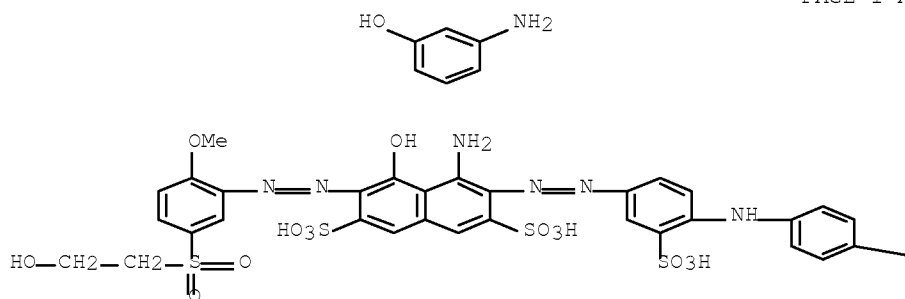


PAGE 1-B

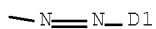


RN 147140-54-3 HCAPLUS
 CN 2,7-Naphthalenedisulfonic acid,
 4-amino-3-[[4-[[4-(aminohydroxyphenyl)azo]phenyl]amino]-3-
 sulfophenyl]azo]-5-hydroxy-6-[[5-[(2-hydroxyethyl)sulfonyl]-2-
 methoxyphenyl]azo]- (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B

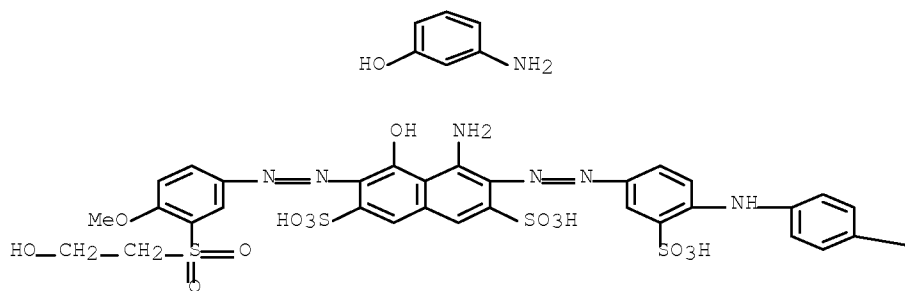


RN 147140-55-4 HCAPLUS
 CN 2,7-Naphthalenedisulfonic acid,
 4-amino-3-[[4-[[4-(aminohydroxyphenyl)azo]phenyl]amino]-3-
 sulfophenyl]azo]-5-hydroxy-6-[[3-[(2-hydroxyethyl)sulfonyl]-4-

10/577,776-337287-EIC SEARCH

methoxyphenyl]azo]- (9CI) (CA INDEX NAME)

PAGE 1-A

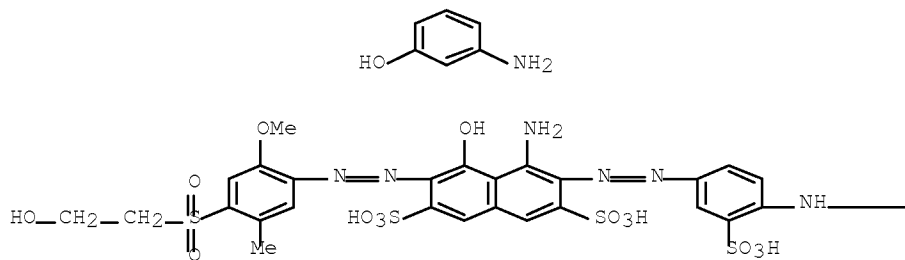


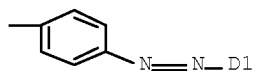
PAGE 1-B

—N=N—D1

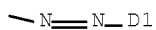
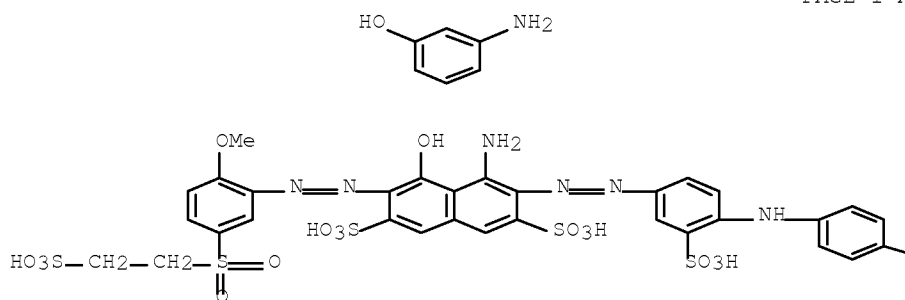
RN 147140-56-5 HCAPLUS
 CN 2,7-Naphthalenedisulfonic acid,
 4-amino-3-[[4-[[4-(aminohydroxyphenyl)azo]phenyl]amino]-3-
 sulfophenyl]azo]-5-hydroxy-6-[[4-[(2-hydroxyethyl) sulfonyl]-2-
 methoxy-5-methylphenyl]azo]- (9CI) (CA INDEX NAME)

PAGE 1-A

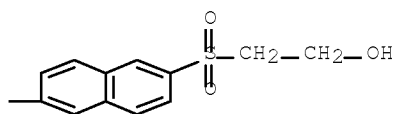
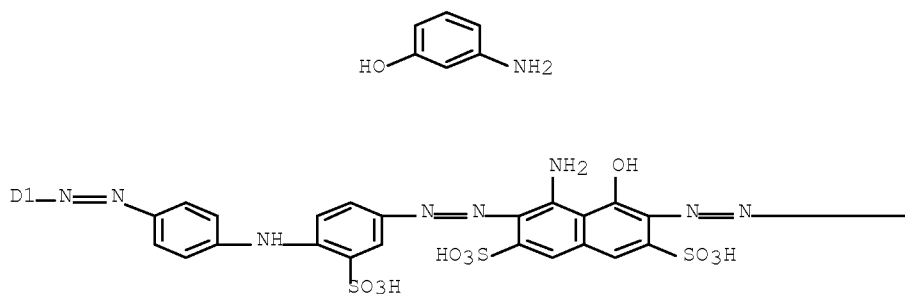




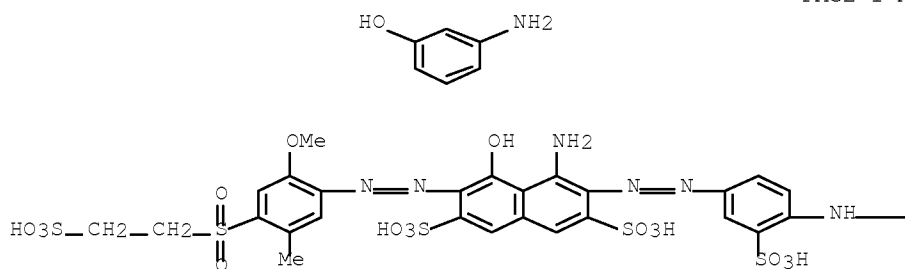
RN 147140-57-6 HCAPLUS
 CN 2,7-Naphthalenedisulfonic acid,
 4-amino-3-[[4-[[4-[(aminohydroxyphenyl)azo]phenyl]amino]-3-sulfo-
 phenyl]azo]-5-hydroxy-6-[[2-methoxy-5-[(2-sulfoethyl)sulfonyl]phenyl]azo]- (9CI) (CA INDEX NAME)

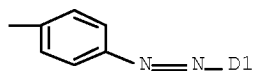


RN 147140-58-7 HCAPLUS
 CN 2,7-Naphthalenedisulfonic acid,
 4-amino-3-[[4-[[4-[(aminohydroxyphenyl)azo]phenyl]amino]-3-sulfo-
 phenyl]azo]-5-hydroxy-6-[[6-[(2-hydroxyethyl)sulfonyl]-2-naphthalenyl]azo]- (9CI) (CA INDEX NAME)

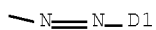
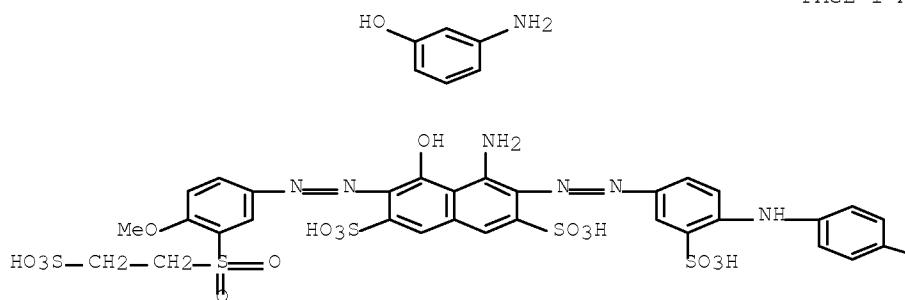


RN 147140-59-8 HCAPLUS
 CN 2,7-Naphthalenedisulfonic acid,
 4-amino-3-[[4-[[4-[(aminohydroxyphenyl)azo]phenyl]amino]-3-
 sulfophenyl]azo]-5-hydroxy-6-[[2-methoxy-5-methyl-4-[(2-
 sulfoethyl)sulfonyl]phenyl]azo]- (9CI) (CA INDEX NAME)

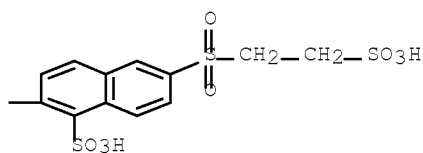
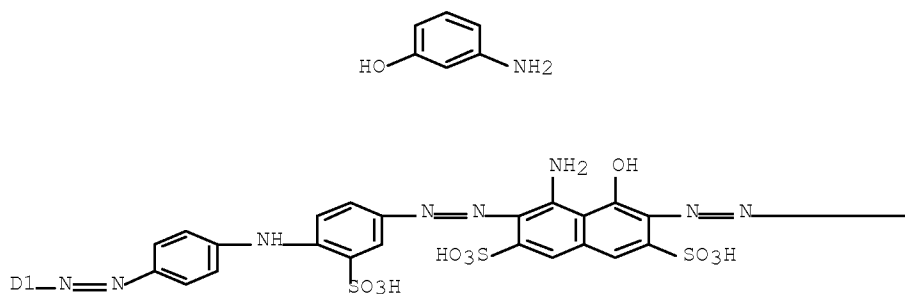




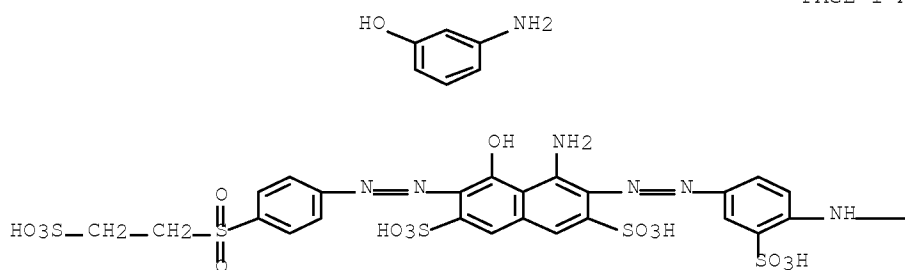
RN 147140-60-1 HCAPLUS
 CN 2,7-Naphthalenedisulfonic acid,
 4-amino-3-[[4-[[4-[(aminohydroxyphenyl)azo]phenyl]amino]-3-
 sulfophenyl]azo]-5-hydroxy-6-[[4-methoxy-3-[(2-
 sulfoethyl)sulfonyl]phenyl]azo]- (9CI) (CA INDEX NAME)

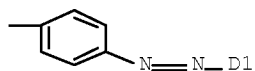


RN 147140-61-2 HCAPLUS
 CN 2,7-Naphthalenedisulfonic acid,
 4-amino-3-[[4-[[4-[(aminohydroxyphenyl)azo]phenyl]amino]-3-
 sulfophenyl]azo]-5-hydroxy-6-[[1-sulfo-6-[(2-sulfoethyl)sulfonyl]-
 2-naphthalenyl]azo]- (9CI) (CA INDEX NAME)

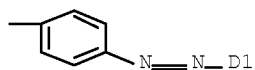
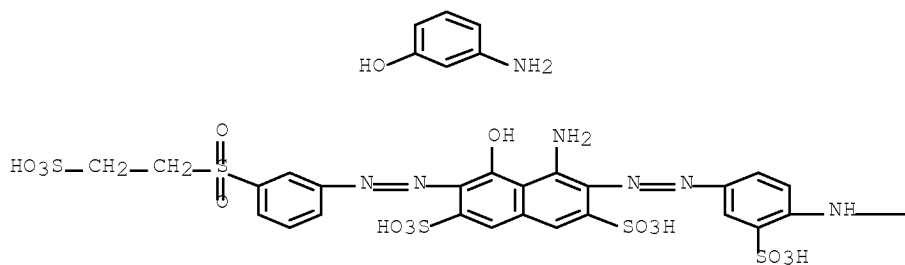


RN 147140-62-3 HCAPLUS
 CN 2,7-Naphthalenedisulfonic acid,
 4-amino-3-[[4-[[4-[(aminohydroxyphenyl)azo]phenyl]amino]-3-
 sulfophenyl]azo]-5-hydroxy-6-[[4-[(2-
 sulfoethyl)sulfonyl]phenyl]azo]- (9CI) (CA INDEX NAME)

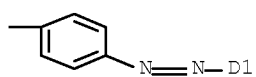
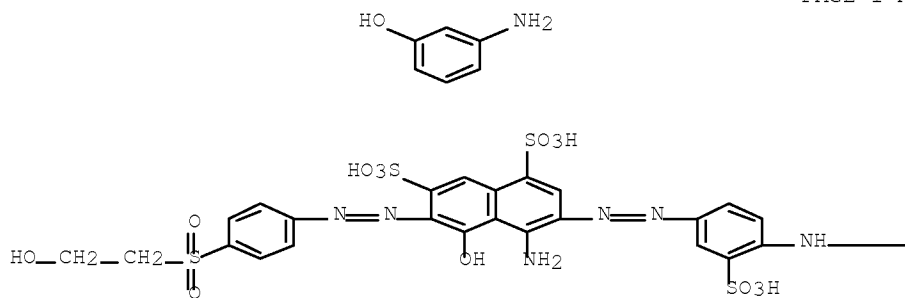




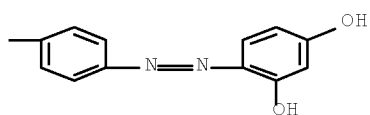
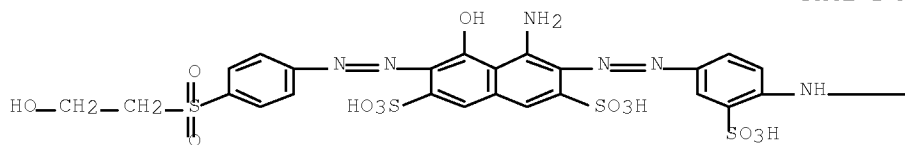
RN 147140-63-4 HCAPLUS
 CN 2,7-Naphthalenedisulfonic acid,
 4-amino-3-[[4-[[4-[(aminohydroxyphenyl)azo]phenyl]amino]-3-
 sulfophenyl]azo]-5-hydroxy-6-[[3-[(2-
 sulfoethyl)sulfonyl]phenyl]azo]- (9CI) (CA INDEX NAME)



RN 147160-50-7 HCAPLUS
 CN 1,7-Naphthalenedisulfonic acid,
 4-amino-3-[[4-[[4-[(aminohydroxyphenyl)azo]phenyl]amino]-3-
 sulfophenyl]azo]-5-hydroxy-6-[[4-[(2-
 hydroxyethyl)sulfonyl]phenyl]azo]- (9CI) (CA INDEX NAME)



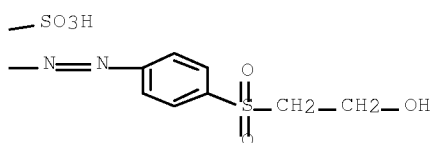
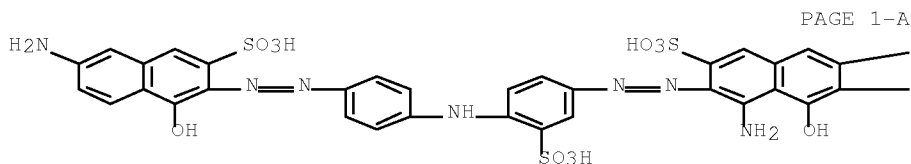
RN 147281-93-4 HCAPLUS
 CN 2,7-Naphthalenedisulfonic acid,
 4-amino-3-[2-[4-[4-[2-(2,4-dihydroxyphenyl)diazenyl]phenyl]amino]-
 3-sulfonyl]diazenyl]-5-hydroxy-6-[2-[4-[(2-
 hydroxyethyl)sulfonyl]phenyl]diazenyl]- (CA INDEX NAME)



RN 147281-94-5 HCAPLUS

10/577,776-337287-EIC SEARCH

CN 2,7-Naphthalenedisulfonic acid,
4-amino-3-[2-[4-[4-[2-(6-amino-1-hydroxy-3-sulfo-2-naphthalenyl)diazenyl]phenyl]amino]-3-sulphophenyl]diazenyl]-5-hydroxy-6-[2-[4-[(2-hydroxyethyl)sulfonyl]phenyl]diazenyl]- (CA INDEX NAME)



IPCI C09B0035-46 [ICM,5]; C09B0035-00 [ICM,5,C*]; C09B0062-513 [ICS,5];
C09B0062-44 [ICS,5,C*]; C09D0011-00 [ICS,5]
IPCR C09B0033-00 [I,C*]; C09B0033-22 [I,A]; C09B0035-00 [I,C*];
C09B0035-46 [I,A]; C09B0062-44 [I,C*]; C09B0062-513 [I,A];
C09D0011-00 [I,C*]; C09D0011-00 [I,A]; C09D0011-02 [I,C*];
C09D0011-02 [I,A]; D06P0001-02 [I,C*]; D06P0001-06 [I,A];
D06P0001-38 [I,C*]; D06P0001-384 [I,A]; D06P0003-04 [I,C*];
D06P0003-32 [I,A]; D06P0003-58 [I,C*]; D06P0003-66 [I,A]
CC 41-3 (Dyes, Organic Pigments, Fluorescent Brighteners, and
Photographic Sensitizers)
Section cross-reference(s): 40, 42, 43, 45
IT ~~Leather~~
Paper
(dyes for, black trisazo compds. as)
IT Dyes, azo
(trisazo, black, for fibers, inks, ~~leather~~ and paper)
IT 147140-52-1P 147140-53-2P
147140-54-3P 147140-55-4P
147140-56-5P 147140-57-6P
147140-58-7P 147140-59-8P
147140-60-1P 147140-61-2P
147140-62-3P 147140-63-4P
147160-50-7P 147281-93-4P
147281-94-5P
RL: PREP (Preparation)
(manufacture of, as black dye for jet-printing inks)
OS.CITING REF COUNT: 4 THERE ARE 4 CAPLUS RECORDS THAT CITE
THIS RECORD (4 CITINGS)

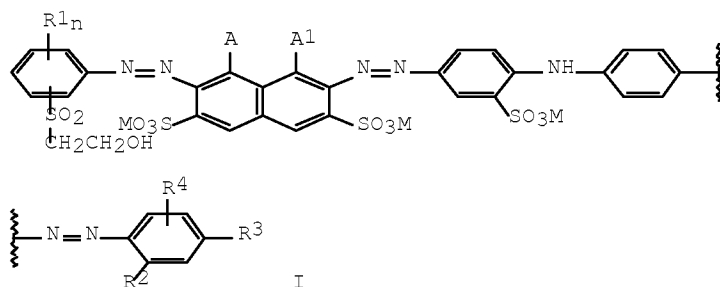
L39 ANSWER 12 OF 14 HCAPLUS COPYRIGHT 2010 ACS on STN
ACCESSION NUMBER: 1992:450760 HCAPLUS Full-text
DOCUMENT NUMBER: 117:50760
ORIGINAL REFERENCE NO.: 117:9037a,9040a
TITLE: Water-soluble trisazo dyes, their preparation
and use
INVENTOR(S): Bauer, Wolfgang; Ritter, Josef; Steckelberg,
Willi

10/577,776-337287-EIC SEARCH

PATENT ASSIGNEE(S): Cassella A.-G., Germany
 SOURCE: Eur. Pat. Appl., 18 pp.
 CODEN: EPXXDW
 DOCUMENT TYPE: ~~Patent~~
 LANGUAGE: German
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO. -----	KIND ----	DATE -----	APPLICATION NO. -----	DATE
EP 471233	A1	19920219	EP 1991-112670	1991 0727
			<--	
EP 471233	B1	19941130		
R: CH, DE, ES, FR, GB, IT, LI				
DE 4025611	A1	19920220	DE 1990-4025611	1990 0813
			<--	
US 5110917	A	19920505	US 1991-740126	1991 0805
			<--	
JP 04288371	A	19921013	JP 1991-201953	1991 0812
			<--	
JP 2992376	B2	19991220		
PRIORITY APPLN. INFO.:			DE 1990-4025611	A 1990 0813
			<--	

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT
 OTHER SOURCE(S): MARPAT 117:50760
 ED Entered STN: 08 Aug 1992
 GI



AB Trisazo compds. I [A, A1 = OH, NH2; A ≠ A1; M = alkali metal, ammonium; R1 = Me, Et, OMe, OEt, OH, halogen, CO2H; R2 = OH, NH2, NHCH2CH2OH, NHCH2CO2H; R3 = H, OH, NH2, NHCH2CH2OH, NHCH2CO2H, NHCONH2, NHPh; R4 = H, Me, Et, O(CH2)mOMe, O(CH2)mOEt, SO3H; m = 1-2; n = 0-2] are useful for dyeing leather and in writing and jet-printing inks. Thus, 4,4'-diaminodiphenylamine-2-sulfonic acid was tetrazotized and coupled 1:1 with 1-amino-8-hydroxy-3,6-naphthalenedisulfonic acid, the monoazo diazonium salt was coupled with diazotized 3-H2NC6H4SO2CH2CH2OH, and the product was coupled with 3-H2NC6H4OH and neutralized with NaOH to give a mixture of I with R2 = NH2, R3 = OH and I with R2 = OH, R3 = NH2, in both of which A = OH, A1 = NH2, R4 = H, M = Na, and n = 0.

10/577,776-337287-EIC SEARCH

The mixture dyed leather and polyamide fibers in black shades with better lightfastness than the analogous mixture missing the SO₂CH₂CH₂OH group.

IT 142388-06-5 142388-07-6
142388-08-7 142388-09-8

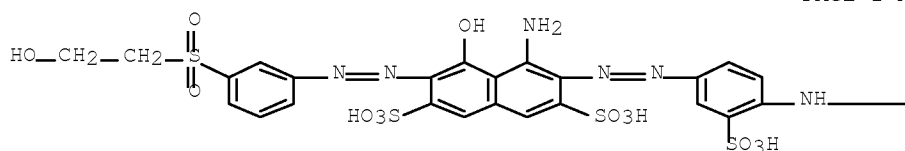
RL: USES (Uses)

(preparation of mixture containing, as black dye for leather and inks)

RN 142388-06-5 HCAPLUS

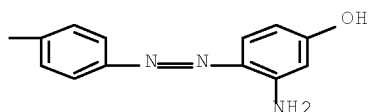
CN 2,7-Naphthalenedisulfonic acid,
4-amino-3-[2-[4-[[4-[2-(2-amino-4-hydroxyphenyl)diazenyl]phenyl]amino]-3-sulphophenyl]diazenyl]-5-hydroxy-6-[2-[3-[(2-hydroxyethyl)sulfonyl]phenyl]diazenyl]-, sodium salt (1:3) (CA INDEX NAME)

PAGE 1-A



● 3 Na

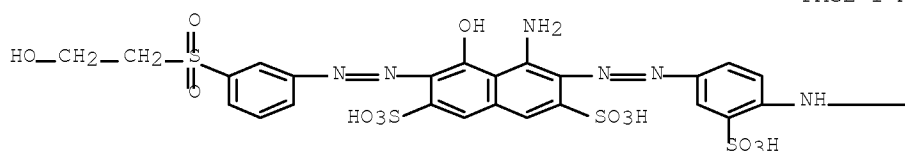
PAGE 1-B



RN 142388-07-6 HCAPLUS

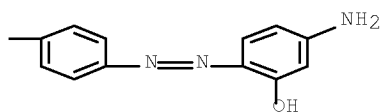
CN 2,7-Naphthalenedisulfonic acid,
4-amino-3-[2-[4-[[4-[2-(4-amino-2-hydroxyphenyl)diazenyl]phenyl]amino]-3-sulphophenyl]diazenyl]-5-hydroxy-6-[2-[3-[(2-hydroxyethyl)sulfonyl]phenyl]diazenyl]-, sodium salt (1:3) (CA INDEX NAME)

PAGE 1-A



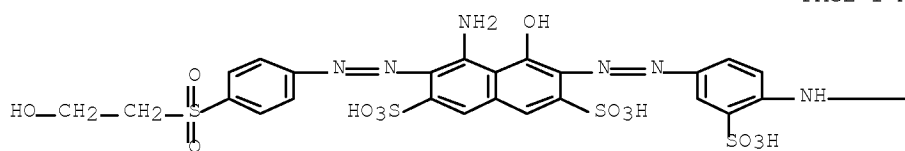
● 3 Na

PAGE 1-B



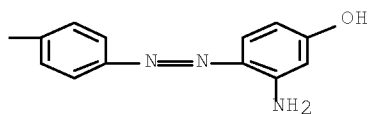
RN 142388-08-7 HCAPLUS
 CN 2,7-Naphthalenedisulfonic acid,
 4-amino-6-[2-[4-[[4-[2-(2-amino-4-
 hydroxyphenyl) diazenyl]phenyl]amino]-3-sulfo-phenyl]diazenyl]-5-
 hydroxy-3-[2-[4-[(2-hydroxyethyl) sulfonyl]phenyl]diazenyl]-,
 lithium salt (1:3) (CA INDEX NAME)

PAGE 1-A

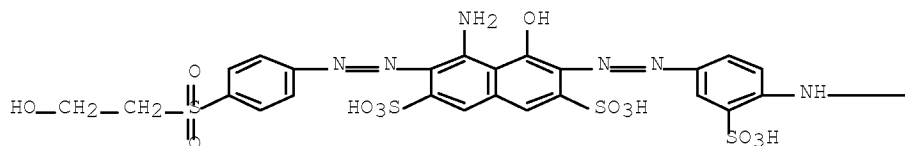


●₃ Li

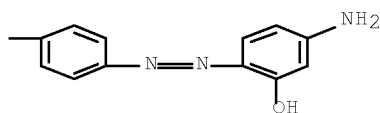
PAGE 1-B



RN 142388-09-8 HCAPLUS
 CN 2,7-Naphthalenedisulfonic acid,
 4-amino-6-[2-[4-[[4-[2-(4-amino-2-
 hydroxyphenyl) diazenyl]phenyl]amino]-3-sulfo-phenyl]diazenyl]-5-
 hydroxy-3-[2-[4-[(2-hydroxyethyl) sulfonyl]phenyl]diazenyl]-,
 lithium salt (1:3) (CA INDEX NAME)



●³ Li



IPCI C09B0062-513 [ICM,5]; C09B0062-44 [ICM,5,C*]; D06P0001-384 [ICS,5]; D06P0001-38 [ICS,5,C*]
 IPCR C09B0035-38 [I,A]; C09B0035-00 [I,C*]; C09B0035-46 [I,A]; C09B0062-44 [I,C*]; C09B0062-513 [I,A]; C09D0011-00 [I,C*]; C09D0011-00 [I,A]; C09D0011-02 [I,C*]; C09D0011-02 [I,A]
 CC 41-3 (Dyes, Organic Pigments, Fluorescent Brighteners, and Photographic Sensitizers)
 ST trisazo dye leather; ink writing trisazo dye; jet printing ink trisazo dye
 IT leather
 (dyes for, water-soluble trisazo compds. with hydroxyethylsulfonyl groups as)
 IT Dyes, azo
 (trisazo, water-soluble, for leather and inks)
 IT 142388-06-5 142388-07-6
 142388-08-7 142388-09-8
 RL: USES (Uses)
 (preparation of mixture containing, as black dye for leather and inks)

L39 ANSWER 13 OF 14 HCAPLUS COPYRIGHT 2010 ACS on STN
 ACCESSION NUMBER: 1971:422469 HCAPLUS Full-text
 DOCUMENT NUMBER: 75:22469
 ORIGINAL REFERENCE NO.: 75:3569a,3572a
 TITLE: Reactive dyes
 INVENTOR(S): Chekalin, M. A.; Nikolaeva, N. F.; Sidneva, K. M.; Boino-Rodzevich, V. P.
 PATENT ASSIGNEE(S): Scientific-Research Institute of Organic Intermediates and Dyes
 SOURCE: U.S.S.R. From: Otkrytiya, Izobret., Prom. Obraztsy, Tovarnye Znaki 1970, 47(36), 95.
 CODEN: URXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Russian
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	-----

10/577,776-337287-EIC SEARCH

SU 288202

19701203

SU

1965

0520

<--

ED Entered STN: 12 May 1984

GI For diagram(s), see printed CA Issue.

AB Reactive dyes, for proteinaceous fibers and ~~leather~~, of the general formula I, where R1 = SO₂CH₂CH₂OSO₃H or H; R2 = the same or different members of the groups Cl, SO₃H, CO₂H, CH₃, SO₂CH₂CH₂OH, SO₂NHCH₂CH₂OH, but not OH and NH₂ groups or substituted OH or NH₂ groups; R3 = H or the same or different N:NA groups where A = an aromatic group which could contain the R1 and R2 groups; n = a whole number from 0 to 3, were prepared by treating 2 moles of a diazonium compound of the general formula II with a Na₂SO₃ solution

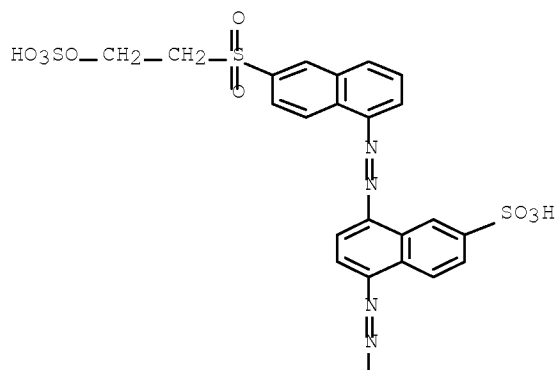
IT 31771-14-9F

RL: IMF (Industrial manufacture); PREP (Preparation)
(preparation of)

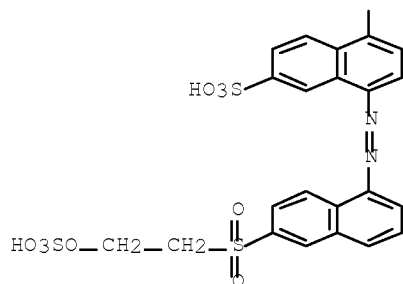
RN 31771-14-9 HCAPLUS

CN 2-Naphthalenesulfonic acid,
5,5'-azobis[8-[[6-[(2-hydroxyethyl)sulfonyl]-1-naphthyl]azo]-,
bis(hydrogen sulfate) (ester) (8CI) (CA INDEX NAME)

PAGE 1-A



PAGE 2-A



IPCI C09B

CC 40 (Dyes, Fluorescent Whitening Agents, and Photosensitizers)

ST protein fiber dye; dye reactive; ~~leather~~ dye; azo dye

10/577,776-337287-EIC SEARCH

prepn

IT 30757-99-4P 31771-14-98
 RL: IMF (Industrial manufacture); PREP (Preparation)
 (preparation of)

L39 ANSWER 14 OF 14 HCAPLUS COPYRIGHT 2010 ACS on STN
 ACCESSION NUMBER: 1971:113232 HCAPLUS Full-text
 DOCUMENT NUMBER: 74:113232
 ORIGINAL REFERENCE NO.: 74:18327a,18330a
 TITLE: Fiber-reactive azo dyes
 INVENTOR(S): Chekalin, M. A.; Nikolaeva, N. F.; Sidneva, K.
 M.; Bojno-Rodzevich, V. P.
 PATENT ASSIGNEE(S): State Scientific-Research Institute of Organic
 Intermediates and Dyes
 SOURCE: Fr., 19 pp.
 CODEN: FRXXAK
 DOCUMENT TYPE: ~~Patent~~
 LANGUAGE: French
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	
FR 1601866		19701030	FR	1968 1112

<--

GB 1270644

GB

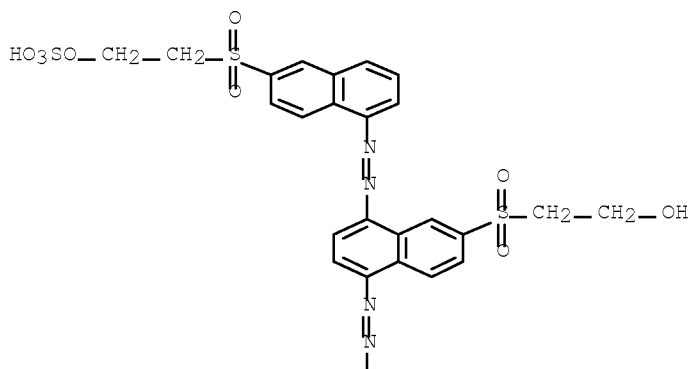
ED Entered STN: 12 May 1984

GI For diagram(s), see printed CA Issue.

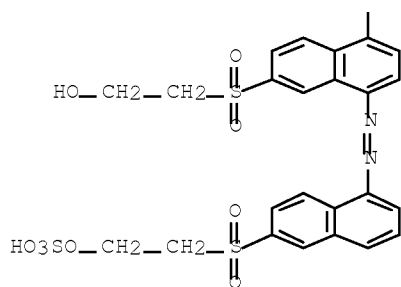
AB Fiber-reactive azo dyes (I, where x = 1 or 0) and similar dyes, useful for dyeing wool, silk, ~~leather~~, cellulose, etc. in yellow, orange, and brown shades, were prepared, for example, by treatment of diazotized 6-(2-hydroxyethylsulfonyl)-1-naphthylamine with Na sulfite and H₂SO₄, giving I (x = n = 0). Also prepared were approx. 20 other I having n = 0, 2, or 4, and R₁ = H, OH, SO₃H, SO₂CH₂CH₂OH, SO₂NHCH₂CH₂OSO₃H, or SO₂NHCH₂CH₂OH.

IT 31715-24-9P 31715-26-1P
 31715-33-9P 31771-14-9P, 2-Naphthalenesulfonic
 acid, 5,5'-azobis[8-[[6-[(2-hydroxyethyl)sulfonyl]-1-naphthyl]azo]-
 , bis(hydrogen sulfate) (ester) 31831-39-7F
 RL: IMF (Industrial manufacture); PREP (Preparation)
 (preparation of)
 RN 31715-24-9 HCAPLUS
 CN Ethanol, 2,2'-[azobis[[8-[[6-[(2-hydroxyethyl)sulfonyl]-1-
 naphthyl]azo]-5,2-naphthylene]sulfonyl]]di-, bis(hydrogen sulfate)
 (ester) (8CI) (CA INDEX NAME)

PAGE 1-A

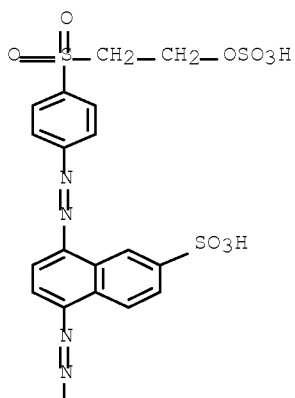


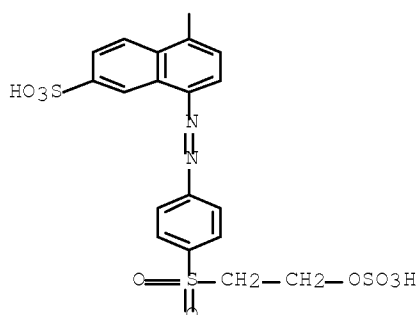
PAGE 2-A



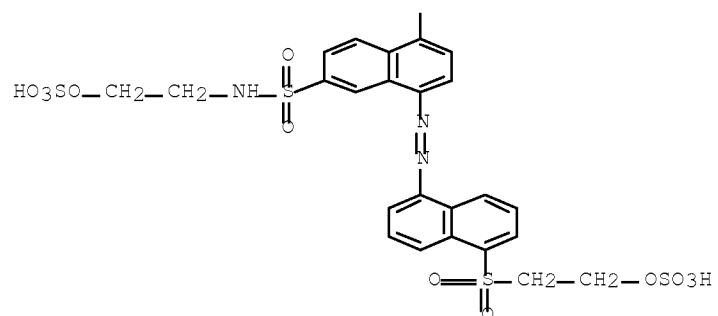
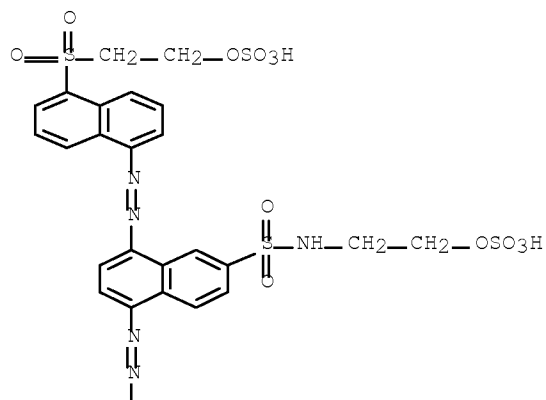
RN 31715-26-1 HCAPLUS
 CN 2-Naphthalenesulfonic acid,
 5,5'-azobis[8-[[p-[(2-hydroxyethyl)sulfonyl]phenyl]azo]-,
 bis(hydrogen sulfate) (ester) (8CI) (CA INDEX NAME)

PAGE 1-A





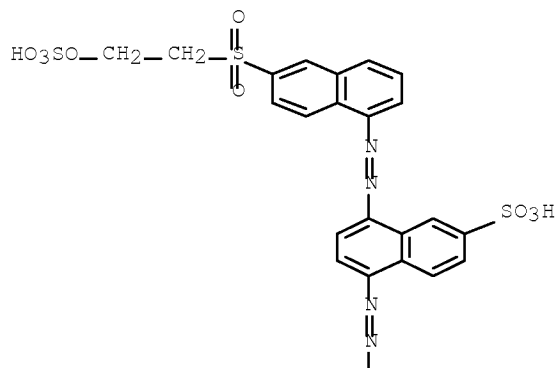
RN 31715-33-0 HCAPLUS
 CN 2-Naphthalenesulfonamide, N-[2-(sulfooxy)ethyl]-5-[2-[6-[[2-(sulfooxy)ethyl]amino]sulfonyl]-4-[2-[5-[2-(sulfooxy)ethyl]sulfonyl]-1-naphthalenyl]diazonyl]-1-naphthalenyl]diazonyl]-8-[2-[5-[2-(sulfooxy)ethyl]sulfonyl]-1-naphthalenyl]diazonyl]- (CA INDEX NAME)



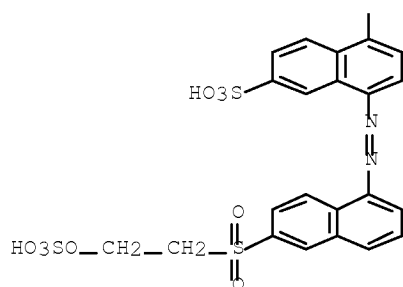
10/577,776-337287-EIC SEARCH

RN 31771-14-9 HCAPLUS
 CN 2-Naphthalenesulfonic acid,
 5,5'-azobis[8-[[6-[(2-hydroxyethyl)sulfonyl]-1-naphthyl]azo]-,
 bis(hydrogen sulfate) (ester) (8CI) (CA INDEX NAME)

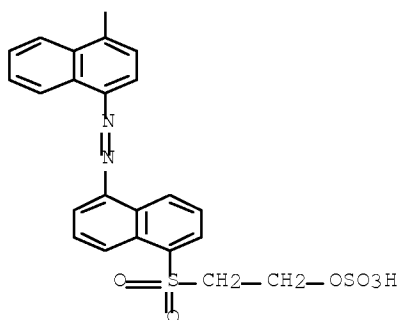
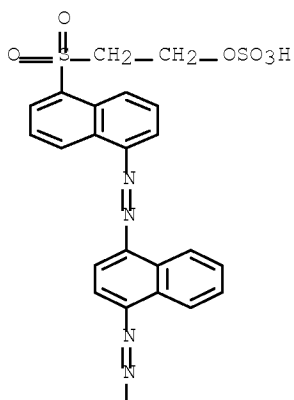
PAGE 1-A



PAGE 2-A



RN 31831-39-7 HCAPLUS
 CN 2-Naphthalenesulfonic acid, 5,5'(or 8,8')-azobis[8(or
 5)-[[5-[(2-hydroxyethyl)sulfonyl]-1-naphthyl]azo]-, bis(hydrogen
 sulfate) (ester) (8CI) (CA INDEX NAME)



2 [D1-SO3H]

IPCI C09B; D06P

IPCR C09B0062-44 [I,C*]; C09B0062-453 [I,A]

CC 40 (Dyes, Fluorescent Whitening Agents, and Photosensitizers)

IT 31631-66-0P 31631-67-1P 31715-24-9P 31715-25-0P

31715-26-1P 31715-27-2P 31715-28-3P 31715-29-4P

31715-30-7P 31715-31-8P 31715-32-9P 31715-33-0P

31771-14-3P, 2-Naphthalenesulfonic acid,

5,5'-azobis[8-[[6-[(2-hydroxyethyl)sulfonyl]-1-naphthyl]azo]-,
bis(hydrogen sulfate) (ester) 31831-39-7P

33537-58-5P

RL: IMF (Industrial manufacture); PREP (Preparation)
(preparation of)

10/577,776-337287-EIC SEARCH

FULL SEARCH HISTORY

=> d his nofile

(FILE 'HOME' ENTERED AT 13:16:21 ON 20 JUL 2010)

FILE 'HCAPLUS' ENTERED AT 13:16:54 ON 20 JUL 2010

E US20070033746/PN

L1 1 SEA SPE=ON ABB=ON PLU=ON US20070033746/PN

D ALL

SEL AU

L2 134 SEA SPE=ON ABB=ON PLU=ON ("ERHARD, REINER"/AU OR
"KIESOW, HARALD"/AU OR "SOMOGYI, LASZLO"/AU OR
"STREICHER, ROLF"/AU OR "ZAMPONI, ANDREA"/AU)

FILE 'ZCAPLUS' ENTERED AT 13:18:09 ON 20 JUL 2010

L3 QUE SPE=ON ABB=ON PLU=ON ERHARD R?/AU

L4 QUE SPE=ON ABB=ON PLU=ON KIESOW H?/AU

L5 QUE SPE=ON ABB=ON PLU=ON SOMOGYI L?/AU

L6 QUE SPE=ON ABB=ON PLU=ON STREICHER R?/AU

L7 QUE SPE=ON ABB=ON PLU=ON ZAMPONI A?/AU

L8 QUE SPE=ON ABB=ON PLU=ON L3 AND L4 AND L5 AND L6
AND L7

FILE 'HCAPLUS' ENTERED AT 13:20:17 ON 20 JUL 2010

L9 1 SEA SPE=ON ABB=ON PLU=ON L3 AND L4 AND L5 AND L6
AND L7

D SCA

FILE 'ZCAPLUS' ENTERED AT 13:20:30 ON 20 JUL 2010

L10 QUE SPE=ON ABB=ON PLU=ON L5 AND (L3 OR L4 OR L6 OR
L7)

L11 QUE SPE=ON ABB=ON PLU=ON L6 AND (L3 OR L4 OR L5 OR
L7)

FILE 'HCAPLUS' ENTERED AT 13:22:20 ON 20 JUL 2010

L12 7 SEA SPE=ON ABB=ON PLU=ON L5 AND (L3 OR L4 OR L6 OR
L7)

L13 1 SEA SPE=ON ABB=ON PLU=ON L6 AND (L3 OR L4 OR L5 OR
L7)

L14 7 SEA SPE=ON ABB=ON PLU=ON L12 OR L13

L15 6 SEA SPE=ON ABB=ON PLU=ON L7 AND ((L3 OR L4 OR L5 OR
L6))

L16 8 SEA SPE=ON ABB=ON PLU=ON (L12 OR L13 OR L14 OR L15)

D SCA

DEL SEL

SEL L16 RN

FILE 'REGISTRY' ENTERED AT 13:24:31 ON 20 JUL 2010

L17 113 SEA SPE=ON ABB=ON PLU=ON (2494-89-5/BI OR 50-00-0/BI
OR 808139-76-6/BI OR 808139-82-4/BI OR 100-01-6/BI OR
104-94-9/BI OR 10420-33-4/BI OR 106003-92-3/BI OR
108-45-2/BI OR 108-46-3/BI OR 108-95-2/BI OR 1115-30-6/
BI OR 112-76-5/BI OR 112-77-6/BI OR 117-62-4/BI OR
118-92-3/BI OR 119-79-9/BI OR 121-57-3/BI OR 1219710-08
-3/BI OR 1219710-09-4/BI OR 1219710-10-7/BI OR
1219710-11-8/BI OR 1219710-12-9/BI OR 1219710-13-0/BI
OR 1219710-14-1/BI OR 1219710-15-2/BI OR 1219710-16-3/B
I OR 1219710-17-4/BI OR 1219710-18-5/BI OR 1219710-19-6
/BI OR 1219710-21-0/BI OR 1219710-23-2/BI OR 1219710-25
-4/BI OR 1219710-27-6/BI OR 1219710-29-8/BI OR
1219710-31-2/BI OR 1219710-32-3/BI OR 1219710-34-5/BI
OR 1219710-35-6/BI OR 1219710-36-7/BI OR 1219710-37-8/B
I OR 1219710-38-9/BI OR 1219710-39-0/BI OR 1219710-40-3
/BI OR 1219710-41-4/BI OR 1219710-42-5/BI OR 1219710-43

10/577,776-337287-EIC SEARCH

-6/BI OR 1219710-44-7/BI OR 1219710-45-8/BI OR
 1219710-46-9/BI OR 1219710-47-0/BI OR 1219710-48-1/BI
 OR 1219710-49-2/BI OR 1219710-50-5/BI OR 1219710-51-6/B
 I OR 1219710-52-7/BI OR 1219710-53-8/BI OR 1219710-54-9
 /BI OR 1219710-55-0/BI OR 1219710-56-1/BI OR 1219710-57
 -2/BI OR 1219710-58-3/BI OR 1219710-59-4/BI OR
 1219710-60-7/BI OR 1219710-61-8/BI OR 1219710-62-9/BI
 OR 1219710-63-0/BI OR 1219710-64-1/BI OR 1219710-65-2/B
 I OR 1219710-66-3/BI OR 1219710-67-4/BI OR 1219710-68-5
 /BI OR 137-51-9/BI OR 141-78-6/BI OR 15468-10-7/BI OR
 16803-97-7/BI OR 20074-69-5/BI OR 2494-88-4/BI OR
 260-94-6/BI OR 26635-93-8/BI OR 3963-80-2/BI OR
 42986-22-1/BI OR 504-65-4/BI OR 574-93-6/BI OR
 588-59-0/BI OR 65461-91-8/BI OR 70380-58-4/BI OR
 7439-89-6/BI OR 7440-50-8/BI OR 7632-00-0/BI OR
 7664-93-9/BI OR 808139-69-7/BI OR 808139-73-3/BI OR
 808139-74-4/BI OR 808139-75-5/BI OR 808139-77-7/BI OR
 808139-78-8/BI OR 808139-79-9/BI OR 808139-80-2/BI OR
 808139-81-3/BI OR 808139-83-5/BI OR 808139-84-6/BI OR
 808139-85-7/BI OR 831-52-7/BI OR 84-89-9/BI OR
 882731-22-8/BI OR 882731-23-9/BI OR 90-20-0/BI OR
 91-29-2/BI OR 913080-14-5/BI OR 96-67-3/BI OR 98-33-9/B
 I OR 99-57-0/BI)

L18 88 SEA SPE=ON ABB=ON PLU=ON L17 AND S/ELS

FILE 'LREGISTRY' ENTERED AT 13:25:30 ON 20 JUL 2010

L19 STR

FILE 'REGISTRY' ENTERED AT 13:31:48 ON 20 JUL 2010

L20 50 SEA SSS SAM L19

L21 13 SEA SPE=ON ABB=ON PLU=ON L18 AND N>5

D SCA

L22 1 SEA SPE=ON ABB=ON PLU=ON L21 AND "C39 H28 N8 O14 S2

. X LI . X NA"/MF

D SCA

D

L23 STR 808139-76-6

D QUE STAT L20

L24 1680 SEA SSS FUL L19

L25 1 SEA SPE=ON ABB=ON PLU=ON L24 AND L17

D SCA

L26 12 SEA SPE=ON ABB=ON PLU=ON L21 NOT L25

D SCA L26

FILE 'STNGUIDE' ENTERED AT 13:40:20 ON 20 JUL 2010

FILE 'REGISTRY' ENTERED AT 13:41:05 ON 20 JUL 2010

SAV TEMP L24 HAM776REG/A

FILE 'HCAPLUS' ENTERED AT 13:41:27 ON 20 JUL 2010

L27 216 SEA SPE=ON ABB=ON PLU=ON L24

L28 QUE SPE=ON ABB=ON PLU=ON COLOR? OR COLOUR? OR
 PIGMENT? OR DYE? OR STAIN? OR PAINT? OR CHROMA# OR
 CHROMOGEN? OR CHROMOPHOR? OR TINCT? OR TINT?

L29 7051 SEA SPE=ON ABB=ON PLU=ON (LEATHER? OR COWHIDE OR
 COW(A)HIDE) (3A) L28

L30 14 SEA SPE=ON ABB=ON PLU=ON L27 AND L29

D KWIC

L31 212 SEA SPE=ON ABB=ON PLU=ON L27 AND L28

L32 QUE SPE=ON ABB=ON PLU=ON (LEATHER? OR COWHIDE OR
 COW(A)HIDE)

L33 14 SEA SPE=ON ABB=ON PLU=ON L31 AND L32

L34 14 SEA SPE=ON ABB=ON PLU=ON L30 OR L33

L35 14 SEA SPE=ON ABB=ON PLU=ON L27 AND L32

L36 14 SEA SPE=ON ABB=ON PLU=ON L34 OR L35

L37 QUE SPE=ON ABB=ON PLU=ON PY=<2004 NOT P/DT

L38 QUE SPE=ON ABB=ON PLU=ON (PY=<2004 OR PRY=<2004 OR

10/577,776-337287-EIC SEARCH

AY=<2004 OR MY=<2004 OR REVIEW/DT) AND P/DT
L39 14 SEA SPE=ON ABB=ON PLU=ON L35 AND (L37 OR L38)
D KWIC
L40 0 SEA SPE=ON ABB=ON PLU=ON L39 AND ((L2 OR L3 OR L4
OR L5 OR L6 OR L7 OR L8 OR L9 OR L10 OR L11))
SAV TEMP L39 HAM776HCP/A
DEL SEL
SEL L39 HIT RN

FILE 'REGISTRY' ENTERED AT 13:48:12 ON 20 JUL 2010

L41 51 SEA SPE=ON ABB=ON PLU=ON (31771-14-9/BI OR 440103-79
-7/BI OR 142388-06-5/BI OR 142388-07-6/BI OR 142388-08-
7/BI OR 142388-09-8/BI OR 147140-52-1/BI OR 147140-53-2
/BI OR 147140-54-3/BI OR 147140-55-4/BI OR 147140-56-5/
BI OR 147140-57-6/BI OR 147140-58-7/BI OR 147140-59-8/B
I OR 147140-60-1/BI OR 147140-61-2/BI OR 147140-62-3/BI
OR 147140-63-4/BI OR 147160-50-7/BI OR 147281-93-4/BI
OR 147281-94-5/BI OR 152333-76-1/BI OR 152689-99-1/BI
OR 152690-00-1/BI OR 159959-58-7/BI OR 159959-59-8/BI
OR 159959-60-1/BI OR 159959-61-2/BI OR 159959-62-3/BI
OR 159959-63-4/BI OR 171370-24-4/BI OR 173783-54-5/BI
OR 192320-55-1/BI OR 252011-02-2/BI OR 252011-03-3/BI
OR 252011-04-4/BI OR 252011-05-5/BI OR 252011-06-6/BI
OR 252011-07-7/BI OR 252011-08-8/BI OR 252011-09-9/BI
OR 252011-10-2/BI OR 252011-11-3/BI OR 252011-12-4/BI
OR 252011-13-5/BI OR 31715-24-9/BI OR 31715-26-1/BI OR
31715-33-0/BI OR 31831-39-7/BI OR 503448-01-9/BI OR
503448-02-0/BI)
D SCA

FILE 'HCAPLUS' ENTERED AT 13:49:15 ON 20 JUL 2010

D QUE L39
D L39 1-14 IBIB ED ABS HITSTR HITIND